

BSBI

RARE PLANT REGISTER

Berkshire & South Oxfordshire

V.C. 22

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Symbols and conventions

The Latin binomial (from Stace, 1997) appears on the left of the first line in bold, followed by the authority in Roman font and the English Name in italics. Names on subsequent lines in Roman font are synonyms (including names that appear in Druce's (1897) or Bowen's (1964) *Flora of Berkshire* that are different from the name of the same species in Stace). At the right hand side of the first line is a set of symbols showing

- status (if non-native)
- growth form
- flowering time
- trend in abundance (if any)

The **status** is one of three categories: if the plant arrived in Britain after the last ice age without the direct help of humans it is defined as a *native*, and there is *no symbol* in this position. If the archaeological or documentary evidence indicates that a plant was brought to Berkshire intentionally or unintentionally by people, then that species is an *alien*. The alien species are in two categories

- neophytes
- archaeophytes

Neophytes are aliens that were introduced by people in recent times (post-1500 by convention) and for which we typically have precise dates for their first British and first Berkshire records. Neophytes may be naturalized (forming self-replacing populations) or casual (relying on repeated introduction). Archaeophytes are naturalized aliens that were carried about by people in pre-historic times, either intentionally for their utility, or unintentionally as contaminants of crop seeds. Archaeophytes were typically classified as natives in older floras. Absence of ○ or ● at the start of the list of traits means 'native' (i.e. not introduced by people).

Growth form describes the structure and life history of the plant. The broad categories are woody plants, herbaceous perennials and annuals, but here I have used the rather more extended system devised by the famous Danish ecologist Raunkiaer (as used in Clapham, Tutin and Warburg's *Flora of the British Isles*). The system is based on the position of the perennating organs (i.e. the location of the buds during the unfavourable season). It is unfortunate that Raunkiaer used such grandiose language for the names of his life forms, but the system is highly practical and has stood the test of time. Woody plants (phanerophytes) are characterized by the fact that they hold their perennating buds aloft, exposed to the winds and winter weather; trees are mega-phanerophytes and dwarf shrubs are nano-phanerophytes. Bulbs and rhizomes are two examples of geophytes where the perennating buds are held underground during the unfavourable season. Cushion-forming perennials are known as chamaephytes. A great many herbaceous perennials have long-lived root systems, but their shoot systems die back to the ground each autumn, and their perennating buds are held close to the soil surface (these are the hemicryptophytes). Annual species have no perennating organs, but survive the unfavourable season as seeds (these are known as therophytes, and their buds are embryonic).

Flowering time is shown as the number of the month in which the species is first likely to be seen in flower in the year (4 = April, 6 = June, etc.). There has been a trend towards earlier flowering of early-season species in recent years, but summer flowering species have shown no such trend. Species that flower only once in the year (like oaks or bluebells) will typically not be found in flower any later than one month after the first flowering date. For repeat flowering species, however, the duration of flowering is highly variable from year to year depending on the vagaries of summer droughts, early autumn frosts, and so on. I have made no attempt to indicate the last month of flowering, but for many repeat flowering species, it is October (when the first serious air frosts are likely to occur). In mild autumns, however, many species continue flowering until after Christmas time.

The final symbol in the list indicates **trends in abundance** of the species in Berkshire. Such trends are notoriously difficult to estimate from historical sources, because authors were so variable from one to the other, and so inconsistent personally, in their assessments of plant abundance. When in doubt, I have omitted any indication of trend. Species that have clearly increased or clearly decreased in the last 100 years are shown like this:

- ↑ increasing in abundance
- ↓ declining in abundance
- † extinct in Berkshire

Absence of ↑ (increasing) or ↓ (declining) from the end of the list means 'stable' in distribution and abundance. Note that extinction is an hypothesis rather than a fact. We suppose that a species is extinct until we rediscover the plant in one of its former habitats, or find it growing in a new place. It may be that some of the species that I have marked as declining are, in fact, already extinct. We really need to monitor all of the declining species on a regular basis and visit all of the former sites of all the species that are thought to be extinct (this is what is proposed under the new scheme proposed by the Botanical Society of the British Isles to maintain *County Rare Plants Registers*). What is obvious is that if we don't look for these plants, then they are certain to stay extinct. One of the great joys of field botanizing is to rediscover a species that was thought to be extinct (see, for example, *Lythrum hyssopifolium*). Some examples follow:

This is read “native annual, flowering from June, stable in abundance”, whereas

○ hyd 5 ↑

is read “archaeophyte aquatic, flowering from May, increasing in abundance”, and

● n 3 †

is read “introduced shrub, flowering from March, extinct”

Order within the text

First, the habitats are listed, in order of importance. Next, indications of distribution and abundance are given (e.g. “widespread and common”, or “local and rare”). Where appropriate, tips on identification are given. Finally, a list is given of the plant communities in which the plant grows in Berkshire (NVC stands for National Vegetation Classification). The system is incomplete at present, and some common plants have no home under the NVC (e.g. *Veronica serpyllifolia*).

Distribution details are given under four headings: within Silwood Park, with the Ascot District, in East Berks and in West Berks (below). For species that have shown a trend in abundance, downwards or upwards, I have given all of Druce’s and Bowen’s sites. The rationale is that by revisiting these sites with a specific species in mind we might rediscover some of them. Thus, within East or West Berks, the sites known to Druce in 1897 are listed first. After a full stop, the sites known to Bowen are listed; this may or may not involve repetition of Druce’s records, depending upon whether a species was still present at a site in Bowen’s time. Finally, after a second full stop, the recent (and by implication current) records are given; unless stated otherwise these are by M.J. Crawley.

Numbers appearing in square brackets are grid references. At the end of the list, the 10km squares in which the species was recorded during field work for Atlas 2000 are listed. Post-1999 records do not appear in this list, but are explained in the text.

Silwood Park: Records refer to the study period 1979-2004. The place names within Silwood Park refer to roughly 1 ha areas.

Ascot: This section is mentioned only when a species is rare or absent in Silwood Park. The district comprises all of the v.c. 22 part of [96], including the southern-western part of Virginia Water plus the villages of Sunninghill, Sunningdale, Ascot and South Ascot. The easternmost 1km strip of [86] is included, along with the southernmost 2km strip of [97]. Historically, the district was well botanized, especially Sunningwell Bog to the south of The Wells, and Ascot Heath racecourse because of botanists spending time at the homes of local gentry.

East Berks: The convention for presenting the 10 km distribution data follows the standard practice for giving grid references: eastings first, then northings. Thus, the squares that make up East Berks are

[76], [77], [78], [86], [87], [88], [96], [97], [98]

This kind of ubiquitous distribution would be written as

Atlas 2000: all squares

for brevity. When the species is found in most squares, the convention is to write

Atlas 2000: all squares except [96]

Note that in the case of “all squares except” I do not mention [98] because such a tiny part of it occurs in v.c.22, and absence from such a small area would be uninformative. The same convention is adopted for squares [27] and [30] in West Berks.

West Berks: There is a slight complication in the numbering system for the 10km squares in West Berks, because two of them, [40] and [50], are in a different 100km square from all the others (SP rather than SU). To maintain the convention that the squares are presented from south to north at each 10km eastward, the numbering looks like this:

[48], [49], [40], [59], [50]

for a species that occurs throughout the Northern Loop (the oolitic limestone district to the south of Oxford).

The sequence of families, genera within families and species within genera follows Stace (1997).

LYCOPODIACEAE

Huperzia selago (L.) Bernh. ex Schrank and Mart. *Fir Clubmoss*

chh 6 †

Lycopodium selago L.

Extinct bog plant. A rare component of the *Erica tetralix-Sphagnum compactum* wet heath.
NVC: M 16

Its loss may have been due to drainage and habitat destruction, but it might be that long-term warming and reduced rainfall caused its demise, because several other species from *Erica tetralix* wet heath have declined, even in well managed nature reserves (e.g. *Myrica gale*, *Rhynchospora alba*, *Eriophorum vaginatum*, *Pinguicula vulgaris*, *Genista anglica*).

East Berks: no records from the heaths on the Bagshot Sands.

West Berks: very local in the Kennet Valley; recorded by Dr Beeke from Ufton Common [66] and Snelsmore Common [47] in 1806 and 1810 respectively, but never seen again.

Lycopodiella inundata (L.) Holub *Marsh Clubmoss*
Lycopodium inundatum L

chh 6 ↓

A short-lived perennial of bare peaty, silty or sandy areas on mires and heaths, lake margins and clay pits; submerged in winter but drying out in summer. Often associated with *Molinia caerulea*, *Erica tetralix*, *Drosera* spp., *Sphagnum compactum* and *S. tenellum*, the branches remain evergreen for 2 years. Much reduced by drainage. An early successional species of acid, nutrient-poor soils, relying on repeated disturbance for its persistence. Sensitive to eutrophication.
NVC: M16

Ascot: Virginia Water (1805). The most recent records are from Tower Hill pits (1974), Dukeshill Golf Course (1984) and Swinley pits (1999).

East Berks: bare marshy spots on peaty heaths on Bagshot Heath (1696), Finchampstead (1893), Wokingham Heath (1897), Wellington College and Penny Hill [8865] (1951). Formerly abundant on bare pieces of peaty soil both north and south of Wellington College (now Crowthorne) Station. Last seen in Wellington College [8263] in 1965 and in Bracknell Forest [907651] in 1984. Atlas 2000: [86]

West Berks: several early nineteenth century records from the acid heaths of Inkpen Common [36], Greenham Common [46], Snelsmore Common [47], Ufton Common [66], but no post-1900 records.

Lycopodium clavatum L. *Stag's-horn Clubmoss*
Lepidotis clavata (L.) P. Beauv.

chh 6 †

Probably extinct. On acid soil in woods and on bare heathy ground.

Ascot: Virginia Water; plants last seen in 1967.

East Berks: Lord Ball's Chapel on Bagshot Heath (1696), but this site may be in Surrey.

West Berks: the Elcot [36] record was pre-1897. Fence Wood [57] plants last seen in 1957.

EQUISETACEAE

Equisetum variegatum Schleich. ex F. Weber and D. Mohr *Variiegated Horsetail*

grh 5

A local speciality of calcareous springs, here growing a long way from its native stronghold in South Wales, and more than 100km away from any other sites. A winter-green plant with slender, perennial shoots on which last year's cones persist. The cones are apiculate (not rounded) at the apex. The teeth of the leaf sheaths have broad scarious margins, which are much wider than the black centres, giving the whole shoot a characteristic black-and-white striped appearance at each node. The stems are short (less than 20cm), and emerge from the water (or the moss) at a shallow angle (closer to prostrate than erect).

West Berks: "locally abundant on wet limestone in Cothill pit" [49] (**OXF**). First recorded by E.G. Arthurs and E.F. Warburg in 1959. This is one of the species singled out for mention in the SSSI declaration for Dry Sandford Pit (= Cothill pit). Still there on 24 November 2002, when it was occasional as scattered shoots in clear shallow water of calcareous springs (growing with the rare stonewort *Chara hispida*), and amongst marginal, lime-encrusted mosses (*Palustriella commutata*). Certainly not "locally abundant", yet found in several of the springs in full sun, but absent from shade in nearby *Phragmites* or *Schoenus nigricans* fen.

OPHIOGLOSSACEAE

Botrychium lunaria (L.) Sw. *Moonwort*
Osmunda lunaria L.

grh 6 ↓

Dry grassy pastures and heaths on acid soil. Often under bracken. Rarely in lawn turf.

Ascot: a single plant survived for many years (1979-1995) in the lawn at John Brady's house, 24 Woodlands Ride [9167]; a garage has now been built on the site.

East Berks: very local and rare. Wellington College until 1928 (**RNG**). Atlas 2000: [86], [96]

West Berks: very rare, recorded in 1666 by Merrett from "Blind-Pinnocks" near Cumnor [40]. Wood, west of Downe House in 1964 [57], Radley Park in 1910 [59], Mortimer Common in 1950 [66]. Atlas 2000: [57], [66]

MARSILEACEAE

Pilularia globulifera L. *Pillwort*

hel 6 ↓

Moist spots on heaths and gravelly margins of ponds in heathy situations. Scarce: A lowland fern of silty and peaty pond margins, and shallow pans and pools resulting from brick-earth or gravel extraction. An early successional species, soon lost when overtopped by more vigorous plant species. Often found with *Apium inundatum*, *Hydrocotyle vulgaris*, *Ranunculus flammula* and *Samolus valerandi*.

NVC: M 29; OV 35

East Berks: a local speciality of the Crowthorne Lake District. First recorded from a pond near Wellington College (**OXF**, 1891). Acid ponds, abundant at South Lake [752723] in 1968 (**RDG**), but not seen since. Its only surviving stations are at Heath Lake, Crowthorne [828652] and at several spots in Moor Green Lakes [8153 6229], [8086 6250], [8092 6226], [8091 6246] and [8090 6219] on Colebrook Lakes and Grove Lake in 2001.

West Berks: no records

THELYPTERIDACEAE

Thelypteris palustris Schott *Marsh Fern*
Acrostichum thelypteris L.
Dryopteris thelypteris Asa Gray

grh 7 †

Marshes, always extremely rare. None of the records were supported by specimens
NVC: M 22, OV 26, S 25; W 5

Ascot: Windsor Park, Sunninghill Wells (1897). Not seen since then.

East Berks: near Loddon Bridge. Not seen recently.

West Berks: Marley Wood. Naturalised in the wild garden of Jarn Mound at Boars Hill [50]; last seen in 1965.

Phegopteris connectilis (Michx.) Watt *Beech Fern*
Phegopteris polypodioides Fee
Thelypteris phegopteris (L.) Slosson

grh 6 †

West Berks: extinct. Found by Mr F. Tufnail in 1892 on a dry bank in woodland north-west of Mortimer Common [66]. Bowen placed a specimen in **RNG**.

Oreopteris limbosperma (All.) Holub *Lemon-scented Fern*
Polypodium limbospermum All.
Polypodium oreopteris Ehrh.
Dryopteris montana Kuntze

h 7 ↓

Heathy places and steep banks in woods on acid soils.
NVC: U 20; W 10

Ascot: very local and rare. By the wooded stream below Sunninghill Park; still there in 2000, but the ditch was bulldozed in 2001. Common in the ditch parallel with the metalled road through Blane's Allotment. Windsor Great Park and Virginia Water (but commonest on the Surrey side).

East Berks: rare and decreasing. Finchampstead Ridges (1966). Atlas 2000: [96]

West Berks: a rarity, lost from many of its former sites. "Existed a year or two ago in Bagley Wood and in woods near Cumnor and Wytham but collectors and cultivation have together nearly extirpated them" (Boswell, 1871). Now all but confined to the south of the county with outlying stations close to Wytham. Hen Wood [40], Snelsmore Common [47], Foxhold, Crookham Common [56], Silchester Common [66]. Atlas 2000: [40], [47]

Cystopteris fragilis (L.) Bernh. *Brittle Bladder-fern*
Polypodium fragile L.

h 7

On old mortar on damp shaded brick work, very rare.

East Berks: not in Druce. Colonist or casual on walls. Bray (1920), but not seen recently (**OXF**).

West Berks: recorded from the damp stair well leading to the cellar of the church at Peasemore [4577] in 1980. Still there in 2004 despite the development of a dense tangle of *Phyllitis scolopendrium*. This is the form that used to be called "var. *dentata* Hook." with small, blunt pinnae (11mm long, 6mm wide), rounded, more obtuse segments and blunt teeth (3-4 per edge). Towards the base of the frond, there is up to 5mm gap of bare stem between one pinna and the next.

DRYOPTERIDACEAE

Dryopteris cristata (L.) A. Gray *Crested Buckler-fern*
Polypodium cristatum L.

h 7

One of our greatest rarities. A *Red Data Book* species of base poor fens, requiring full sun and intolerant of shading by encroaching *Betula pubescens*. Grows with *D. carthusiana* and various *Sphagnum* spp. close to, or underneath, *Salix cinerea*. The site is drying out despite the best efforts of Ted Green to block all of the drains and hence to restore the water table to its former level.
NVC: M 25

East Berks: in *Molinia* bog, south of the Lower Star Post [879633], by the stream through Wishmoor Bottom that forms the Surrey border. First found by C. P. Petch in 1968 and subsequently followed as its population fluctuated, often close to local extinction. Always commoner on the Surrey side of the stream until recently, but there were 3 plants on the Berkshire side in 1988 and 2 on the Berkshire side in 1998 on peat on the sides of freshly cut dragonfly ponds. In May 2004 there were more than 10 plants on the Berkshire side in 5 locations close to the Wish Stream, just south-west of the road bridge.

PINACEAE

Juniperus communis L.
Juniperus communis subsp. **communis** *Common Juniper*

mm 5 ↓

Grassy chalk downs and hawthorn scrub. Once locally common, now much declined. Turner (1664) wrote "it grows much upon the hills and woody grounds in Berkshire". Nowadays, however, recruitment failure is common, even on nature reserves managed for the encouragement of Juniper. NVC: CG 2; W 21

East Berks: extinct as a native plant. Occasionally in Bisham Wood, and between Henley and Pinkneys Green. Gone from these sites by 1968. Much decreased generally as a result of the twin evils of scrub encroachment and destruction of chalk grassland for arable agriculture. Atlas 2000: none

West Berks: in Victorian times, it was occasional all the way along the chalk ridge from Streatley to Lambourn. Now much declined, but still to be found in scattered locations along the Ridgeway as at Chilton [48], east of Hermitage, Aldworth Church and Applepie Hill [57], Aston Upthorpe Downs [544835], Ridgeway [5282], Lowbury Hill, Oven Bottom, Moulsoford Downs, Streatley Warren, Streatley Hill and Blewbury chalk pit [all 58]. Apparently extinct at Weston [37], Letcombe [38], Ashampstead [57], Basildon and Pangbourne [67]. Atlas 2000: [48], [40], [57], [58], [50], [67]

ARISTOLOCHIACEAE

Asarum europaeum L. *Asarabacca*

• grh 5 †

An ancient introduction in woods and shady places, now extinct.

East Berks: by the roadside from Henley to Maidenhead (Abbot, 1802), but this record was never confirmed.

West Berks: three old records from [57] but no recent sightings. At The Homestead, Hawkridge [5472] (**OXF**) in 1915, Frilsham [5373] in 1915 (**RNG**), and in a wood at Yattendon [5474] in 1912 (**OXF**).

Aristolochia clematitis L. *Birthwort*

• grh 6

An ancient introduction, used as an aid to parturition (hence the English name) and often associated with ancient ruins.

East Berks: unconfirmed records from Reading 'monastery' (1650) and a hedge near Windsor (1805).

West Berks: long-known from Godstow Nunnery [483090] where the population has been monitored by the Ashmolean Rare Plants Group since 1993. It flowers every year, and while flower numbers vary considerably, there are about 150 non-flowering shoots in most years. Also recently recorded in nearby Wytham village (2000-04).

RANUNCULACEAE

Helleborus foetidus L. *Stinking Hellebore*

chh 3

Old woods, chiefly of beech on calcareous soils. Commonly planted in gardens and churchyards, and many of the roadside plants are certainly garden escapes. Told from *H. viridis* by leaves all on the stem (not basal) and bracts entire (not deeply divided). Most conspicuous in February when its pale, yellowish green flowers contrast with a still lifeless backdrop.

Silwood Park: naturalised sparingly in the Japanese Garden.

East Berks: in hedgerows about Hurdle Shaw [582797] and below Grims Ditch [592795]. In woods at Windsor, Rose Hill, Park Place. Locally frequent on banks around Maidenhead sewage works [8980] in 2001. Whitley [7270] and Bulmershe [7573] in 2002. 2% (1km²). Atlas 2000: all squares, but mainly as garden escapes.

West Berks: very local and rare. Most frequent in the Pang Valley; Yattendon, Hermitage, Bradfield, Bucklebury, Streatley and Tomb Farm [57], Basildon and Sulham [67], Cleve Lock [68], but also at Ashbury [28], Buscot Lock [29], Buckland [39], Marcham and Kingston Bagpuize [49] and Radley [59]. Atlas 2000: [28], [38], [39], [49], [57], [58], [67]

Helleborus viridis L. *Green Hellebore*

hp 2 ↓

Helleborus viridis subsp. **occidentalis** (Reut.) Schiffn.

Helleborus occidentalis Reuter

Woods and bushy places, rare. Old oak woods, very local and rare. Most of the plants are garden escapes or relics of cultivation. Told from *H. orientalis* by smaller flowers (3-5cm across, not 5-7cm) and follicles fused for about one quarter of their length (not free to the base).

West Berks: Pusey [39], Newbury and Enborne [46], Peasemore [47], Hendred [48], Kingston Bagpuize and Frilford [49], Mutton Copse [587795] has about 200 plants, Streatley [58], Pangbourne [67]. Atlas 2000: [39], [46], [47], [57]

Pulsatilla vulgaris Mill. *Pasqueflower*

h 4 ↓

Anemone pulsatilla L.

A local speciality of grassy chalk downs, at its southern British limit in Berkshire. "The Pasque Flower occurs in Berkshire over a small area, where it is by no means continuous, but is found in scattered patches, which are more frequent on the slopes than on the tops of the chalk downs" (Druce). Most colonies occur on steep south or south-west facing slopes on the escarpment of the chalk where the turf is characteristically species-rich. Threatened by scrub encroachment and poor grazing management.

NVC: CG 2,3,5

East Berks: planted at Park Place, but there are no native records from the grasslands of the northern chalk.

West Berks: local and rare. First specimens from Hampstead Norreys [57] in 1865 (**OXF**), Lowbury Hill [5382] in 1889 (**OXF**), Pusey [39] in 1895 (**OXF**) and Wembury [48] in 1910 (**OXF**). Cherbury Camp [39], Ilsley Downs and Ridgeway above Lockinge [48], Aldworth downs (**LAN**) [5579], Aston Upthorpe Downs [544835] where there were 12 plants in 1988 and 26 in 2001, Blewbury Downs (**OXF**) and Moulsoford Downs [all 58]. Formerly on Unhill and Yewtree Downs [58], Streatley and Pangbourne Downs (the head-quarters of the plant in Berkshire according to Pamplin in 1854) [67]. Vulnerable to acid rain and fertilizer pollution, even in its protected sites. The Aston Upthorpe site has declined dramatically over the past 30 years, and is now in poor condition, despite the introduction of new Pasqueflowers by conservationists. It is odd that it never grew on the western chalk; for instance, Weathercock Hill above Ashdown Park [28] looks to be ideal habitat. Atlas 2000: [39], [48], [58]

Ranunculus parviflorus L. *Small-flowered Buttercup* th 5 ↓

A scarce plant of dry arable fields, sunny banks, open disturbed ground and woodland rides on sandy soil. Found in rabbit scrapes, tracksides, flower beds, gravel paths, cliff edges, etc. often with *Cardamine hirsuta* and *Veronica arvensis*. Exhibits great size plasticity and range of flowering dates (from April to December in particularly mild, damp years). Very local and decreasing.

East Berks: Pinkneys Green in 1919 (**RDG**) and Winter Hill in 1897. Not seen recently.

West Berks: cultivated ground in Lower Seeds and Upper Seeds at Wytham [40] (still there in 2003), Castle Hill, Sinodun Hills [59], Bagley Wood and Kennington [50], Aldermaston (**RDG**) in 1930 [56], Grazeley [66], Bradfield [67]. The best site on which to see this plant is Greenham Common, in open ground at the eastern end [516644] that had been kept free of perennial plant cover by disturbance from military vehicles (now managed to conserve rare annual plants including *Apera interrupta*). Atlas 2000: [40], [56]

Ranunculus arvensis L. *Corn Buttercup* o th 6 ↓

Cornfields, formerly locally abundant and widely distributed, but now much declined as a result of herbicide use. Decreases under spring cultivation. Rare and sporadic as a casual of waste ground and rubbish tips.

NVC: OV 9

East Berks: Hurley, Sonning (**RNG**), Bisham, Maidenhead (**HULL**), White Waltham, Wargrave, Old Windsor, Finchampstead (**RNG**), Wellington College, Wokingham, Shinfield. Atlas 2000: [76], [87]

West Berks: locally frequent on the Upper Greensand, rare and sporadic elsewhere. Compton Beauchamp [28], Challow [38], Baulking and Buckland [39], Chieveley and Hermitage (**RNG**) [47], Ardington and Harwell [48], East Hagbourne and North Moreton [58], Brightwell and Didcot [59], Sugworth [50], Burghfield [66], Tilehurst (**RDG**) [67]. Recently at Eaton Hastings [2697] and Step Farm [2795]. Atlas 2000: all except [37], [46], [57], [68]

Ranunculus lingua L. *Greater Spearwort* h 6 ↓

Lake sides, river banks, marshes, ditches on nutrient rich mud, and wet woodland; rare and decreasing, but often planted.

NVC: M 9; S 1,4,22; W 5

Ascot: on the southern shore of Virginia Water, opposite Temple Bungalow [965690] in 2003 growing with *Acorus calamus*. Fernbank Road, where it is certainly planted. In Sole's Pond east of Ascot Station (1975-2004).

East Berks: Cookham by the water called the Strand. Riseley, Swallowfield, Dinton Pastures, The Throat, ponds at Cranbourne, Leiper Hill. Planted in recent years in many of the ponds in Windsor Great Park. <1% (1km²). Atlas 2000: [76], [77], [86], [96], [97]

West Berks: in The Wilderness at Kintbury in 1918 [36], by the R. Cole opposite Sevenhampton Place [312898], Wantage old canal [38], by the Land Brook south of Charney Bassett [379931], Buckland [39], Hoe Benham [46], Abingdon [49], Thames meadows at Wytham Ditches (**RNG**) [40], Chapel Row, Thatcham (**RNG**), Carbin's Wood and Brimpton pit [56], Yattendon in 1902 and 1922 (**RNG**) [57], Barrow Hills [59]. Atlas 2000: [38], [49], [40], [56]. [57], [59]

Water crowfoots (Ranunculus Subgenus Batrachium (DC) A. Gray)

The white flowered water buttercups with hair-like (capillary) submerged leaves (in which form they often overwinter) and sometimes terrestrial summer leaves that are more obviously buttercup-like. Except in the cleanest chalk streams, the water crowfoots are in serious trouble. They are present in greatly reduced abundance in polluted surface waters and have suffered enormously from draining and stream cleaning operations. The taxonomy of the group is now well worked out (Stace, 1997), but a complete understanding of the distributions of species within Berkshire still requires more work.

Ranunculus hederaceus L. *Ivy-leaved Crowfoot* hyd 6 ↓

Shallow streams, muddy borders of ponds, wet places; rare and decreasing.

NVC: A 8; OV 35

East Berks: Coleman's Moor (**RDG**), Blackwater, Windsor Great Park in 1888, Wellington College, Sandhurst, Finchampstead (**OXF**), Arborfield, Riseley, Ambarrow (**RNG**), Bulmarsh, Warren Row. Still at Bearwood, Chapel Green near Wokingham and Shinfield Grange (**RNG**). Atlas 2000: no records

West Berks: first recorded in 1858 from South Hinksey church (**OXF**). Much reduced; 25 of Druce's 29 localities are lost, including all of the Thames-side locations. Survives only in the Kennet Valley e.g. [4167]: Hamstead Marshall [46], Turners Green [56], Mortimer [66]. Atlas 2000: [36], [46], [56]

Ranunculus omiophyllus Ten. *Round-leaved Crowfoot*

hel 5

Ranunculus lenormandii F. Schultz

Ranunculus hederaceus L. subsp. omiophyllus (Ten.) Cout.

A local speciality of ferruginous swamps and flooded tracks. All its leaves are laminar, and divided to less than half way. The sepals are reflexed and the achenes glabrous. Told from *R. hederaceus* by petals > 4.5mm, much longer than sepals (2-3 times). Found in sun or shade on wet mud and in shallow acid ponds and streams in heathy districts. Local and rather rare.

NVC: A 11

Ascot: one of the surviving specialities of Sunningwell Bog. A single plant on bare drying mud beneath *Salix cinerea* in the north-west corner of the Bog [927683] in May 1980; still there in 2002. On 18 May 2003 there were two good patches, each more than 1m across, in standing water next to the sunken tin bath tub, with *Carex viridula* subsp. *oedocarpa* and *Dryopteris carthusiana*. A single plant beneath birch, by the ferruginous ditch that runs through the middle of Wells Wood [932684]. North side of the railway on Whitmoor Bog [8968] in 1999. In deep tractor ruts in two places near the crossroads of the grassy tracks on Icehouse Hill close to the Lime Avenue in Swinley Park [895675] on 20 May 2003. Not in Silwood Park

East Berks: confined to acid ponds on the Bagshot sands in the south of the area. Rare and decreasing. Bagshot Heath in 1871, Blackwater below Finchampstead, ditch near Bracknell, Windsor Park, Swinley, Wokingham. Finchampstead Leas [7560], Heath Lake at Crowthorne (RNG) [8365], Bracknell [8565]. Locally frequent on the margins of Heath Lake in 1994. By a shallow muddy pond to the east of Wokingham [8326 6895] in April 2003. Atlas 2000: [76], [86], [97]

West Berks: no records

Ranunculus trichophyllus Chaix *Thread-leaved Water-crowfoot*

hyd 3

Ranunculus drouetii F. Schultz

Still shallow ponds in a range of wetland habitats. The earliest water-crowfoot to flower (March-April).

NVC: A 1,8,9,11,20; OV 35; S 23

East Berks: Winter Hill, Wargrave, Arborfield, White Waltham, Stubbings Heath. Ponds, ditches and gravel pits with nutrient rich water. Bearwood, Twyford, Cookham Down. Absent from east of 80. Atlas 2000: [76], [77], [87], [88]

West Berks: Little Coxwell [29], Childrey [38], Buckland and Denchworth [39], Chieveley and Chapel Wood [47], Cothill, Marcham (LAN), Ardingtonmead Farm and Frilford [49], Newbridge and Wytham [40], Abingdon, Didcot and Radley [59], Pingewood [66], Tidmarsh [67] Atlas 2000: [28], [29], [36], [38], [39], [46], [47], [49], [40], [57], [59], [66], [67]

Ranunculus aquatilis L. *Common Water-crowfoot*

hyd 5

Ranunculus heterophyllus Wigg.

Shallow water of rivers, ponds, brooks and ditches on nutrient rich mud, flowering in May and June. Cattle-poached pond edges are a favoured habitat, often growing with *R. trichophyllus*, *Glyceria fluitans*, *Lemna minor* and *Callitriche obtusangula*.

East Berks: local and uncommon: Whistely Green (RNG), Wargrave, Pudders Farm [808811], Cock Marsh. Atlas 2000: no records

West Berks: Buscot and Little Coxwell [29], meadows under Wytham [40], R. Enborne [56], R. Pang [57], Mortimer (RNG) and Burghfield (RDG) [66], in the Thames at Pangbourne [67]. Atlas 2000: [46], [40], [56]

Ranunculus x virzionensis A.Felix = **R. aquatilis x R. peltatus**

East Berks: Stokes Farm, Wokingham [8065] in 1918 (RNG).

Ranunculus peltatus Schrank *Pond Water-crowfoot*

hyd 5

Ranunculus aquatilis L. subsp. peltatus (Schrank) Syme

Ponds, ditches and calcareous streams and gravel pits. Capillary leaves shorter than internodes, with divergent segments and less than 100 ultimate segments. Often found in the upper reaches of chalk streams that dry out in summer (replaced downstream in deeper and more permanent water by *R. penicillatus* subsp. *pseudofluitans*).

NVC: A 2,11,12,20,23; OV 32

East Berks: Woodley (LAN), Wokingham, Earley, Winkfield, Arborfield, Shurlock Row, Blackwater, plentiful in Virginia Water, Wargrave, Cookham, Maidenhead, Binfield, Ruscombe. Moor Green Lakes nature reserve [8062] in 2001. Atlas 2000: [76], [87], [88], [97]

West Berks: specimens from Bradfield (RDG) and Theale (RDG) [67] in 1916. Lechlade [29] to Wytham [40], Inkpen [36], Lambourn [37], Wantage [38], Hamstead Marshall and Newbury [46], Beedon [47], Ilsley [48], Abingdon [49], Aldermaston [56], Hampstead Norreys and Bucklebury [57], Burghfield [66], Tidmarsh [67]. Atlas 2000: [36], [37], [38], [46], [47], [40], [56], [66]

Ranunculus penicillatus (Dumort.) Bab. *Stream Water-crowfoot* hyd 5
Ranunculus penicillatus subsp. **pseudofluitans** (Syme) S.D. Webster
Batrachium penicillatum Dumort.
Ranunculus aquatilis L. var. *pseudofluitans* Syme
Ranunculus pseudofluitans (Syme) Newbould ex Baker and Foggitt
Ranunculus aquatilis L. subsp. *pseudofluitans* (Syme) Clapham
Ranunculus calcareus Butcher

Our commonest and most widely distributed deep-water crowfoot, often forming dense beds which span the entire channel. Quiet pools on the river are white with its blossom. Typically replaced in more sluggish or eutrophic rivers by other kinds of aquatic plants like *Myriophyllum spicatum* or *Potamogeton* spp. Pollution sensitive, but responds quickly to improvements in water quality. Capillary leaves usually 6-8 x forked, ultimate segments more than 100 (or > 200).
 NVC: A 15,17

East Berks: commonest in the R. Loddon as at Swallowfield, but also in the R. Thames at Sonning, Reading, and Wargrave, and at Smallmead [7169]. In The Cut where it flows next to the M4 Motorway at Beenhams Heath [8575]. Atlas 2000: [76], [77], [87]

West Berks: locally dominant in fast flowing calcareous streams like the Rivers Lambourn, Pang and Kennet. Wantage [38], Welford Park, Boxford and Winterbourne [47], Wytham [40], Brimpton [56], Stanford Dingley [57], Cholsey and Blewbury [58], Tidmarsh [67], and the Kennet from Hungerford [36] to Reading [67]. Atlas 2000: [29], [36], [37], [46], [47], [49], [40], [56], [57], [58], [59], [67]

Ranunculus fluitans Lam. *River Water-crowfoot* hyd 6 ↓

Rivers and fast-flowing calcareous streams. Flowering from June onwards. Often replaces *R. penicillatus* subsp. *pseudofluitans* downstream where the water is deeper, faster flowing and more eutrophic. Hard to separate from *R. penicillatus* subsp. *pseudofluitans* and *R. peltatus* (see Stace 1997 for details). Capillary leaves seldom more than 4x forked.
 NVC: A 19; S 23

East Berks: locally abundant in Druce's time at Sonning, Sandford Mill, Henley, between Wargrave and Maidenhead and in the Thames at Reading. Probably extinct in the Lower Thames by Bowen's time. Atlas 2000: no records

West Berks: confined to the larger rivers: R. Cole above and below [204988], R. Thames at Faringdon [29], Northmoor Lock and Wytham [40], R. Kennet at Hungerford and Kintbury (RNG) [36], Hamstead Marshall and Newbury [46] and Woolhampton, Thatcham and Aldermaston [56]. Enborne at Brimpton [56]. Atlas 2000: [46]

Ranunculus circinatus Sibth. *Fan-leaved Water-crowfoot* hyd 6 ↓
Ranunculus divaricatus Schrank

Ponds, ditches, gravel pits, canals, and streams. Rather common and widely distributed in a range of still water habitats between 1m and 3m deep (it is intolerant of desiccation). Relatively easy to identify: all leaves capillary, rigid and circular in outline, with all the segments lying in the same plane. Apparently much less common than in Druce's time as a result of habitat destruction (water pollution, filling in of farm ponds, loss of ditches following conversion of grazing land to arable, etc.).
 NVC: A 3,5,8,11,15,20; OV 32

East Berks: very local. Bearwood Lake (RNG), Sandhurst [829614], South Lake [755722]. Atlas 2000: [76], [77], [86], [96]

West Berks: specimens from [49] Abingdon (OXF) in 1852 and Marcham (OXF) in 1895, Pangbourne (HULL) [67] in 1897. Buscot Lake [29], Newbury [46], Aldermaston (LAN) and Brimpton pit [56], Radley [59], Kennington pit and South Hinksey [50]. Atlas 2000: [29], [40], [56], [59], [50]

Adonis annua L. *Pheasant's-eye* o th 7 ↓

Cornfields on gravelly or chalky soil, local, rare and mostly casual.
 NVC: OV 15

East Berks: a rare weed at Wargrave (1897). At Stratfield Saye in 1986. Not seen since.

West Berks: the first records (1809) were from around Yattendon [57]. Other nineteenth century records from Wantage (LAN) [38], Aston Tirrold (RNG), the Streatley area (RNG and RDG) and Aston Upthorpe [58], South Hinksey (OXF) [50], Theale (RDG) [67]. The most recent records were from arable land in the vicinity of Aston Upthorpe and Aston Tirrold in 1977. Atlas 2000: no records

Myosurus minimus L. *Mousetail* th 6 ↓

A rarity of damp arable fields on gravelly or flinty soil. Seasonally inundated ground, gateways and suchlike, subject to trampling, compaction and poaching by horses or cattle, or on cultivated ground, gardens or grassland margins. A sporadic and unpredictable

arable weed. Subject to competitive exclusion by vigorous grasses and herbs if grazing is stopped. Much reduced in Berkshire. Druce says it is “very local but abundant where it does occur”. Bowen says it is “very local and sporadic”. Now it is simply rare.
NVC: OV 21

East Berks: Old Windsor, Windsor (1913), Cookham, Finchampstead, Sonning; Shinfield (1977), Great Lea Common (1988), Sonning (1951), Maiden Erleigh (1977), Whiteknights Park (1986), Wokingham (1952). Rare or absent to the east of 80. One of the most reliable spots to see Mousetail is by the track between Great Lee Common and the M4 Motorway [707687]. <1% (1km²). Atlas 2000: [76], [77], [88]

West Berks: early records from Frilsham (RNG) [57] in 1896 and Burghfield (RDG) [66] in 1911. Hungerford [36], Enborne and Newbury [46], Snelsmore Common and Peasmore [47], Beenham [56], Cholsey [58], Home Farm at Little Wittenham, Didcot (OXF) and Radley [59], Mortimer and Beenham [66], Sulham and Calcot [67]. Absent from the north and the west. Atlas 2000: [36], [46], [47], [56], [57], [58], [59], [50], [66]

BERBERIDACEAE

Berberis vulgaris L. *Barberry*

• n 5 ↓

Hedges and old walls in low-lying districts; local and rare. Discovered in the nineteenth century to be a host plant for the black rust fungus of wheat, so many barberry hedges were grubbed out and replaced by hawthorn and blackthorn.

Ascot: no records. Not in Silwood Park.

East Berks: planted at Frogmore. Mostly found as single bushes; Twyford Mill, Remenham, Finchampstead Ridges, Ashley Hill, White Waltham. Quite widespread, but very uncommon. Atlas 2000: [77], [78], [86], [87], [88], [97]

West Berks: Watchfield (RNG) in 1935 [29], Standen [36], between the Hideaway and Carswell Home Farm, Buckland [39], Hamstead Park [46], Harwell and Lockinge [48], Kingston Bagpuize and Dry Sandford Pit (where it was also planted in the 1990s) [49], in a hedge in the vineyard at Cumnor, on the ruined walls of Godstow Nunnery, Youlbury and Wytham [40], Bagley Wood and South Hinksey [50], Beenham [56], Compton [57], Aston Tirrold [58], Barton Court [59], Pangbourne [67], grounds of Wallingford castle [68]. post-2000 records from Buscot [2298] and Dry Sandford Pit [4699]. Atlas 2000: [29], [36], [46], [49], [40], [57], [58], [59], [50], [67], [68], [69]

PAPAVERACEAE

Papaver hybridum L. *Rough Poppy*

○ th 6 ↓

Local and rare in dry, mostly calcareous arable fields. Flowers darker red than the other poppies (crimson rather than scarlet). Like *P. argemone* with prickly capsules, told from it by its squarish (not elongated, 1.5-2 times as long as wide) fruits.

Ascot: no records from the acid soils of south-east Berkshire

East Berks: Remenham sand pit with 3 other poppy spp., Sonning Cutting, Hurley. Rather rare and infrequent. Bowen considered the plant to be extinct in East Berks. Atlas 2000: [77], [78], [88]

West Berks: Kintbury and Elcot [36], Kingston Lisle [38], East Ilsley and Woolley [48], Frilford, Abingdon, Cothill pit, Marcham, Kingston Bagpuize and West Hanney [49], verge near Dry Sandford [40], Beenham [56], Compton [57], former railway at Hagbourne, Blewbury, Streatley (LAN), Moulsoford, Aston Upthorpe reservoir and Aston Tirrold [58], Pumney Farm [59], Mortimer and Padworth [66], Tilehurst [67]. Atlas 2000: [36], [39], [47], [48], [49], [40], [57], [58], [59], [66], [67]

Papaver argemone L. *Prickly Poppy*

○ th 6

Roemeria argemone (L.) C. Morales, L. Mend. & Romero Garcia

Dry arable field margins and disturbed ground on poor sandy or chalky soils. Often with *P. rhoeas* and sometimes with *P. dubium* or *P. hybridum*. More unusual associates include *Anthemis cotula*, *Legousia hybrida*, *Petroselinum crispum*. Susceptible to most herbicides and to competition from vigorous, well-fertilised crops; hence its restriction to odd field corners. Uncommon on set-aside land.

NVC: OV 3

Silwood Park: local and rare; arable ground at Pound Hill Fallow where it was a weed in broad beans in 1987 and wheat in 1990; still present in the fallow in June 2001 in a good poppy year. Also with imported topsoil on the Science Park in May 1990, but not seen since.

East Berks: Marlow, Park Place, Earley, Hurst, Coleman's Moor, Wargrave, Maidenhead, Twyford, Shinfield, Jouldern's Ford, Farley Court and Sheeplands. < 1% (1km²). Atlas 2000: [76], [77], [86], [88], [96]

West Berks: Newbury [46], East Ilsley [48], Frilford Heath and Kingston Bagpuize [49], Pickets Heath and Wytham, [40], Radley [59], Sulham Hill [67]. On set-aside near Abingdon [468979] in 2001. In an unsown fallow margin of a wheat field at Hinton Waldrist [372978] in July 2004. Atlas 2000: all except [28], [68], [69]

FUMARIACEAE

Ceratocapnos claviculata (L.) Lidén *Climbing Corydalis*

th 6

Fumaria claviculata L.

Corydalis claviculata (L.) DC.

Dry woods on acid soils, coppices and hedges, very local and rare. Restricted to the extreme south of the county.
NVC: W 10,16

Silwood Park: one of our great native rarities. A single patch in damp birch woodland in Great Mead, above Cascade Bridge, scrambling amongst bracken and brambles. Ray Davies knew of the patch in 1979 but I could not find it until 15 June 1990 despite searching each year. Still there in 2000, but fluctuating greatly in abundance from year to year. The path has moved because of the activities of the Blue Tit nest box people; in 2002 the path was much further away from the boundary than it used to be. The *Corydalis* was still present in low abundance in May 2002, on the edge of the boundary Rhododendrons, beneath a fallen Hazel tree, in a patch measuring just 4m x 3m, but was not seen in 2003.

Ascot: one of the botanical delights of Sunningwell Bog south of Wells Lane [9368], where it is locally frequent on dry ground and steep ditch banks. This is probably the location of the first county record, made on a visit to Ascot by H. Wilkin in 1857. An excellent patch on open ground in 2002, forming a 3m wide halo around the trunk of a veteran oak tree just north of the railway [928681]. Common on sunny ditch banks by the St George's School playing fields [930684]. At the south-western corner of Wells Wood [931684]. Rare and scattered on the bare floor of Railway Wood beneath pine and beech [931682].

East Berks: local and uncommon, but spectacularly abundant in 1997 amongst bluebells over substantial areas of the forest floor in Swallowfield Great Wood [736657]. There is an excellent patch at Longmoor [782655] on dry ground beneath birch, measuring 15m x 8m in May 2002. Old records from Sunningdale Station, Farmer Bishop's Wood, Ambarrow, Wokingham by the Blackwater, Finchampstead (RDG), Crowthorne, Agates Meadow Wood, Emms Copse. Recently at North Court Farm [799640] and Emms Copse [744654]. 1% (1km²). Atlas 2000: [76], [86], [96]

West Berks: very local and uncommon. Cold Ash and Bucklebury Lower Common (RNG and RDG) from 1950 and 1960 respectively [56] and still at [545687], Clay Hill and Stamford Dingley [57]. Recently in Jennett's Hill Wood [582709] and Carbin's Wood [5668]. Atlas 2000: [56], [57]

Fumaria capreolata L. *White Ramping-fumitory*

th 5 ↓

Fumaria capreolata subsp. **capreolata**

Waste ground, very rare. Told by its large flowers (10-13mm), and its rigidly recurved fruiting pedicels.

East Berks: Wargrave (1871), Windsor (1878), Sandhurst (1895). No record in Bowen.

West Berks: Tilehurst [6674] in 1960-61. Atlas 2000: no records

Fumaria muralis Sond. ex W.D.J. Koch *Common Ramping-fumitory*

th 5 ↓

Fumaria muralis subsp. **boraei** (Jord.) Pugsley

Fumaria boraei Jordan

Waste ground and hedge-banks, rare and sporadic. Told by its spatulate lower petal, dentate sepals (at least at the base), and flowers 9-11mm

NVC: OV 4,13

East Berks: Maidenhead [88] on the railway in 1895. Earley in 1918. By the Blackwater by New Bridge. More recent records from New Mill [76] in 1977. No records in Bowen.

West Berks: old nineteenth century records for Hinksey (OXF) [50], Culham (OXF) [59], Earley [77] and Chieveley [47] in 1972 and Frilford golf course [49] in 1977. Recently on waste ground used for storing topsoil at Tadley Common [606626] on 12 June 2001 (K), close by [601625] in 2002, and in the back garden of 17b Park Crescent, Abingdon [490974] in 2002.

Fumaria densiflora DC. *Dense-flowered Fumitory*

o th 6 ↓

Fumaria micrantha Lagasca

A local speciality. Calcareous arable land and cultivated fields, “not uncommon but rather local” in Druce’s time, while it was “local and sporadic” by Bowen’s time. Now centred on [58]. Not found recently in East Berkshire and apparently extinct in Kennet. Told from the next two species by its relatively larger flowers (at least 6mm) and sepals (at least 1.5mm), and told from the much commoner *F. officinalis* by its longer bracts (at least as long as the pedicels, often longer).

East Berks: only one record from Maidenhead (**HULL**) in 1923.

West Berks: Kintbury [36] in 1897, Crog Hill, Wantage Fair Mile (**LAN**) and Nutwood Down [38], between Beedon and East Ilsley [4879], Abingdon [49], Wootton [4701], Perborough Castle, Compton (**OXF**) [57], Aston Upthorpe, Blewbury, Aston Tirrold, Kingstanding Hill, Streatley (**RNG**) and Unhill Bottom [58], Upper Basildon [67]. Most recently from Aston Upthorpe [542832] in June 1988. Still at Weathercock Hill [297826], Britchcombe Farm, Hackpen Hill and by the Ridgeway [38], and at Streatley Warren [559808].

Fumaria parviflora Lam. *Fine-leaved Fumitory* ○ th 6 ↓

A local speciality. Cultivated fields on the lower chalk, very local and sporadic. A small-flowered Fumitory as the Latin name suggests, told from *F. vaillantii* by its lighter petals (white or pale pink rather than pink) and bracts at least as long as the fruiting pedicels (not shorter).

West Berks: Lowbury Hill, Fair Mile, Aston Upthorpe Reservoir and Streatley (**LAN**) [58] with a 1897 record from Hoe Benham [46]. Most recently, a single plant was found in chalky arable ground at Aston Upthorpe reservoir [5585] in June 1988, and another on Aston Upthorpe Down [544835] in June 1992.

Fumaria vaillantii Loisel. *Few-flowered Fumitory* ○ th 6 ↓

A local speciality of calcareous arable land, gardens and disturbed ground. Local and sporadic. Told from *F. parviflora* by its darker petals and shorter bracts (*see above*).

East Berks: Pepper Lane, Reading [7070] in 1956.

West Berks: Membury [37], Seven Barrows (**OXF**) and Wantage Fair Mile (**LAN**) [38], East Ilsley, Chilton and Harwell [48], Upper Seeds Wytham [40], between Lowbury Hill and Unwell Road, Fair Mile (**OXF**), Aston Tirrold and Aston Upthorpe [58], Tilehurst and between Streatley and Pangbourne [67]. Recently from Membury [311749], above Wantage [347847], Castle Hill Fort by The Ridgeway [381841], Aston Upthorpe [545835] and Fair Mile [553826], all since 1986.

ULMACEAE

The Dutch Elm Disease epidemic was one of the greatest landscape disasters ever to hit the Berkshire countryside. Before 1965, elms were the most conspicuous hedgerow trees of the lowlands of the Thames valley, and gave a unique character to its farmland: “shadowy cliffs” with “pale corn waves rippling to a shore” (Betjeman), and “Elmy” was one of Betjeman’s favourite adjectives when waxing lyrical about the beauties of the Vale of the White Horse. “Rich corners of rustic England are one year a little yellowed, the next as bare as battlefields. Those dusty summer lanes in the heart of England that were half black shadow, half tattered sleepy sunlight among cobwebs, nettles and leafy elm shoots will soon be exposed to an unnatural glare” (Wilkinson 1978). By 1975 all of the larger trees were dead, their gaunt skeletons haunting the landscape for many years afterwards. In some cases the rootstock is not killed by the disease, and thickets of suckers form where old stems have died back. The stems inevitably succumb to the disease as soon as they are large enough to be attacked by bark beetles.

Dutch Elm Disease is caused by a fungus *Ceratocystis ulmi*, which is transmitted from tree to tree by scolytid bark beetles (*Scolytis* spp.) which breed beneath the bark of dying elms and then carry the spores to shoots of healthy elms where the adult beetles feed on the young bark. Symptoms are the wilting and dying of individual branches in the outer crown. The fungus blocks the phloem vessels and the shoots then die from water stress; it grows very quickly and can kill a large tree within 2 months. There are several different genetic strains of the disease, and tree genotypes that are resistant to one strain may be susceptible to others. *Zelkova* is susceptible to *Ceratocystis* but the trees seldom suffer from the disease because *Zelkova* is not attractive to the bark beetles.

The correct identification of elms is notoriously difficult. You need to get leaves from the middle of short shoots (not from the elongated terminal shoots), and you need to gather them in high summer. Do not attempt to identify material that comes from lammas shoots or from epicormic sprouts. We have only 2 common elms: *U. glabra* has abundant rust coloured hairs on its buds and big, short-petioled leaves, while *U. procera* has rounder, smaller leaves (5-9cm rather than 8-16cm) with a longer petiole (5-8mm rather than <3mm).

Ulmus glabra Huds. *Wych Elm* mm 2 ↓
Ulmus glabra subsp. **glabra**

A woodland rather than a hedgerow elm, often near dwellings. Occasional in damp woods but rare or absent on very acid soils in south and east Berkshire. Dominant or abundant in a few valleys on nutrient rich soils in west Berkshire. Decimated during the Dutch

Elm Disease epidemic. This is a non suckering species, rarely found outside woodlands. It is the only elm in Berkshire commonly to reproduce by seed. Much less abundant than *U. procera*.
NVC: W 8,10,12,14,21

Silwood Park: rare and almost certainly planted. Ashurst Path, South Lodge.

Ascot: no other records. It does, however, occur sparingly just outside the area in ancient woodland in Windsor Great Park (e.g. at Flemish Farm).

East Berks: scattered throughout but commoner in the north-west than in the south-east. Commonest, and still healthy post Dutch Elm Disease, in the chalk woods at Bisham [8584] and [8685]. Also at Emmbrook, Earley, Childs Hall, Sindlesham Mill, Highfield Park, opposite Henley, Heath Pond, Shottesbrooke, Howlane Bridge, Warfield Park, Holloway, in the northern block of Maidenhead Thicket at Pinkneys Green, West Maidenhead, Dial Close, Guild House, Windsor Great Park. 4% (1km²). Atlas 2000: all squares

West Berks: Atlas 2000: all squares

Ulmus x hollandica Mill. *Dutch Elm*
Ulmus x minor auct., non Miller
Ulmus x hollandica Miller var. insularum Richens

West Berks: pre-1918 records from Moulsoford [58], Kennington [50] and Wallingford [68]. Hailey Wood and Upper Wood [28] in 1955, Forest Copse Didcot [58] in 1980 (**OXF**), in a thicket at Didcot Power Station [59] in 1976 (**OXF**).

Ulmus x elegantissima Horw. = **U. glabra x U. plotii**

Recorded as present in Berks by Stace (1975) without further details (Druce has 3 records in *Additions to the Berkshire Flora* from 1918 at Kennington, Moulsoford and Wallingford).

West Berks: Foscot Copse Didcot (OXF) [5489] in 1980, and Didcot Power Station (OXF) [5190] in 1976 (both det. R. Melville).

Ulmus procera Salisb. *English Elm* mm 5 ↓
Ulmus minor auct., non Miller
Ulmus minor Miller var. vulgaris (Aiton) Richens

Shady lanes, hedges, woods, fields and parks, especially in the clay vales. Abundant in some woods in west Berkshire. Frequent in plantations, parks and hedges on nutrient rich soils, but rare on very acid soils. Post Dutch Elm Disease, the English elm survives as dense thickets of regrowth shoots that spring up from the rootstocks of apparently dead parent plants. The disease persists at low levels on the few larger trees, infesting the younger shoots as soon as they become big enough to be susceptible to attack by the scolytid beetles that spread the fungus from infected to susceptible individuals, thereby maintaining the disease. Often associated with the grass *Elymus caninus*. The leaves are mined by *Stigmella ulmivora*. Elm was always associated with death and melancholy (the wood of elm was used for making coffins); as the ancient saying has it "Elm hateth Man and waiteth".
NVC: W 8,21

Ascot: Loudon believed that many of the elms at Windsor were *U. subserosa* the Dutch cork barked elm (Druce).

East Berks: still very common as suckers in hedgerows, as in the country to the south of Knowl Hill. 67% (1km²). Atlas 2000: all squares

West Berks: Atlas 2000: all squares

Ulmus minor Mill. mm 5 ↓
Ulmus minor subsp. **minor** *Small-leaved Elm*
Ulmus carpiniifolia Gled.
Ulmus stricta (Aiton) Lindley
Ulmus ? diversifolia Melville
Ulmus coritana Melville
Ulmus minor Miller var. subserosa (Moench) Dost l

Colonist or planted in hedges in small quantity Rare. The amount of synonymy speaks volumes about the difficulty of identifying these plants.
NVC: W 8

East Berks: Bray Wick (1966), Dinton Pastures (1988). Rare in hedges on the gravel workings at Whistley Park [7873] in July 2002.

West Berks: pre-1918 records from Hanney [49], Appleton and Cumnor [40], Moulsoford [58], Radley [59], Kennington [50], Wallingford [68]. Ardington [48] in 1966. The most modern record is from Buscot Park [29] in 1996.

Elm cultivation is largely a matter of history since 1965, and few people risk planting elm trees these days. The following taxa have not yet succumbed to Dutch elm disease in Silwood Park:

URTICACEAE

Urtica dioica subsp. **galeopsifolia** (Wierzb. ex Opiz) Chrtek *Stingless Nettle* hp 6
Urtica galeopsifolia Wierzb. ex Opiz

Riversides and reedbeds. Stingless nettles with elongated drooping leaves and greyish pubescent stems. These plants occur in a number of places by the R. Thames from Wytham meads downstream to Windsor, by the R. Loddon and by the R. Kennet. Stace considers this taxon to be of very doubtful status, and at least sometimes it reverts to normal stinging form when transplanted and grown in dry soils (Hawkins, 1997, *BSBI News* 77, 35).

East Berks: banks of the R. Thames and adjacent backwaters. Less frequently by the R. Loddon, as at [761648]. Abundant in *Phragmites* swamps at Windsor with *Calystegia sepium*.

West Berks: locally frequent by the Thames from Wytham Meads Ditches [4609] to Sutton Courtenay. By the R. Kennet at Marsh Benham Lock [420671], Woolhampton [5766] and Thatcham reedbeds [510663].

MYRICACEAE

Myrica gale L. *Bog-myrtle* n 4 ↓

One of our most charismatic bog plants, the scent of its leaves is instantly redolent of Scottish summer days. It grows on heathland, often with *Molinia* and *Erica tetralix*, in places where the drainage is impeded. Bog-myrtle represents a sad case of decline of a once-dominant component of one of our more interesting natural plant communities. Drainage and poor burning management threaten the few remaining sites. It is a victim of the philistine notion that heathland destruction constitutes “development of worthless land.”

NVC: M 13,16,21; S 25; W 4

Ascot: the plant was present on bogs near Ascot railway in Druce’s time, but sadly it is long extinct following drainage of Sunningwell Bog.

East Berks: Damp heaths and bogs, very local and decreasing. Bagshot Heath, Finchampstead Leas, Sandhurst, Poppy Hills, Ambarrow, Broadmoor Bottom, Owls Moor, Windsor Park in Druce’s time. Bowen knew the plant from Wellington College, Owlsmoor, Swinley Park and Ascot (1966). An excellent population survives around Mill Pond south-east of the Lookout in Bracknell Forest [8865], at Bush Fields [887646] and Cobblers Hole [895644], and in the bog on the western edge of the firing range at Poppy Hills [8663]. Also still found at Broadmoor Bottom [855630] and Rapley Lake [8964], but the biggest population is west of the Wish Brook between the bridges at [875624] and [877627]. It also grows at the point where the southern track crosses the Wishmoor Bottom bridge on the Berkshire side of the stream, but this site is drying out and is in serious danger of being overgrown by encroaching woodland. 1% (1km²). Atlas 2000: restricted to [86]

West Berks: Greenham Common [46], Crookham Common (RDG) [56] in 1935, and pre-1897 records from Aldermaston Decoy [66]. Atlas 2000: no records.

FAGACEAE

Quercus petraea (Matt.) Liebl. *Sessile Oak* mm 4
Quercus robur L. var. *petraea* Mattuschka

Woods and plantations on acid soils, usually planted. Local and rare. Natural regeneration has not been observed despite the occasional production of massive acorn crops in mast years like 1995.

Silwood Park: we have only planted individuals. There are 3 trees on the slope above the Nuclear Reactor at the end of the Immunology Building, one in the extension between the Japanese Garden and London Road, and another 3 next to Unit E on the Science Park. The biggest population is in Mann’s Copse where they were planted in rows in 1986, to form the standard trees in a new coppice-with-standards woodland.

East Berks: uncommon as planted specimens throughout Windsor Great Park (32m x 5.3m in 1966) and rare in Bracknell Forest. Bearwood, Wellington College, Wishmoor Bottom, Clayhill Farm. Atlas 2000: all except [78], [88]

West Berks: rare in the Kennet valley and in the Northern Loop as at Wytham and Foxcombe Hill [40], Bagley [50], etc. Planted in many of the larger estates along the Kennet valley as at Hamstead Park [46]. Also on Snelsmore Common [47], Bucklebury [56], Lowerhill Farm [59] and Church End Copse [67]. Atlas 2000: [29], [36], [47], [40], [56], [57], [59], [50], [67]

Quercus x rosacea Bechst. = **Q. petraea x Q. robur**

There is a crude but useful scoring system for determining hybrid oaks. Score 2 points for pedunculate acorns, 1 point for sessile acorns; 2 points for simple hairs or no hairs in the axils of the leaf veins below, 1 point for stellate (star-shaped) hairs; 2 points for a lobed leaf base, 1 point for cuneate (wedge-shaped; score 1.5 if one side of the petiole has a lobe and the other side is cuneate !); 2 points for petiole less than 1cm long, 1 point for petiole more than 1cm. Add your 4 scores together, then:

8 points	pure <i>Q. robur</i> (the common hedgerow oak, dominant in woodlands on acid soil)
4 points	pure <i>Q. petraea</i> (rare in Berkshire, except as an occasional planted tree)
5-7 points	<i>Q. x rosacea</i> , the higher the score, the closer to <i>Q. robur</i> (occasional, both planted and self-seeded)

If you can not find any acorns, then the scores are out of 6, and the hybrids score 4 or 5.

Silwood Park: no records, all our naturally seeded trees are pure *Q. robur*.

East Berks: commonly planted in Windsor Great Park and the Crown Estates woodlands, some of the trees achieving great size.

West Berks: Bayworth [50] in 1963, Bucklebury [56] in 1980, Wytham [40] in 1987.

CHENOPODIACEAE

Chenopodium vulvaria L. *Stinking Goosefoot* th 7 †

Rubbish heaps, garden ground on rich soil; rare and sporadic.

West Berks: abundant on rubbish on Abingdon [49] racecourse in 1890 and from the town (RNG) in 1914. At Didcot [59] in 1897. Kennington tip [50] in 1955. No recent records.

Chenopodium hybridum L. *Maple-leaved Goosefoot* o th 8 ↓

Waste and garden ground, rubbish heaps, rare.

Silwood Park: rare casual. A single plant amongst *Urtica urens* at The Tip on 4 September 1994.

East Berks: Rare and sporadic; near Bray (1897), Reading (1831 and 1968), Woodley (1969), Smallmead tip (1971). More or less restricted to larger towns in the Thames valley. Atlas 2000: only the Silwood plant [96]

West Berks: nineteenth century records from near Botley [40], plentiful near Grandpont [50] in 1889, Abingdon [49], East Ilsley [48]. Recent records from Tadpole Bridge [30], Marcham [49] in 1962, Cumnor [40] in 1944, Appleton [40] in 1965, Botley bypass [40] in 1968, Long Wittenham [59] in 1976, Southcote Manor (RDG) in 1919, Pangbourne [67] in 1963. Atlas 2000: [39], [49], [40], [59]

Chenopodium urbicum L. *Upright Goosefoot* o th 8 ↓

Rubbish-heaps and manured arable land, very rare. Told by the fact that the plant is neither hairy nor mealy, has entire tepals, horizontal black seeds, and triangular or diamond-shaped toothed leaves.

Ascot: rare to the east of Ascot Heath [926697] on 1 September 2002, where a post-maize fallow had been spread with horse manure and wood shavings. Recorded by Druce from Sunninghill in 1897.

East Berks: Hurst Green (1897). Not seen by Bowen.

West Berks: by the railway near the Oxford gas works [50] in 1886, ballast heaps at Kings Mead by the mouth of the R. Kennet [77] in 1895. One recent record from arable land near Bradfield [589722] in 1988 (RNG).

Chenopodium murale L. *Nettle-leaved Goosefoot* o th 7 ↓

Waste and cultivated ground, river-sides, gardens and rubbish-heaps. Rare and sporadic.

East Berks: Near Bray (1897). Rubbish tips, Crowthorne (1948), Coley Park (**LAN**) in 1957, Sandhurst (1964), Smallmead tip and Whiteknights Park (1965), Clewer (1969). Abundant on a large midden at Swallowfield [724643] on 2 August 2002.

West Berks: nineteenth century records, plentiful at Grandpont [50] in 1888, Marcham Village [49] in 1896. Recent records from Sutton Courtenay [4892] in 1978 and Didcot [59] in 1980.

Chenopodium desiccatum A. Nelson *Slimleaf Goosefoot* ● th 8

Chenopodium pratericola Rydb.

Chenopodium leptophyllum (Nutt. ex Moq.) S. Watson

Very rare casual. Easy to identify with its small, unlobed, rather fleshy, lanceolate leaves.

East Berks: not in Druce. Reading in 1911 (**OXF**), and Reading in 1921 (**RDG**). A large, 8-stemmed plant, on 5 October 2003, with other aliens on open waste ground by a recently completed housing development in Bracknell [882689], after an unusually hot dry summer.

West Berks: Abingdon [49] in 1918

Chenopodium berlandieri Moq. *Pitseed Goosefoot* ● th 7

Chenopodium zschackei Murr

East Berks: plants of this species (or hybrids with *C. album*; see Stace, 1997) are in **OXF** and **LAN** from Reading tip in 1962

West Berks: Abingdon [49] in 1924. There are field records of hybrids with *C. album* by M.F. Watson in 1987 from Kingston Lisle [3287] and Crowmarsh Gifford [6287].

Chenopodium hircinum Schrad. *Foetid Goosefoot* ● th 7 †

West Berks: introduced with hides at Abingdon [49] in 1917 (**OXF**).

Chenopodium opulifolium Schrad. ex W.D.J. Koch and Ziz *Grey Goosefoot* ● th 8 ↓

Waste places, local and sporadic.

East Berks: On the railway ballast at Reading. Introduced, Reading tip (**LAN**) [7070] in 1962, Smallmead tip [7169] in 1971 and near Reading gasworks [727732] in 1979. Atlas 2000: no records

West Berks: no recent sightings, but nineteenth century records from waste ground in Abingdon [59], by the railway at Didcot [59], Grandpont (**LIVU**) [50]. Atlas 2000: [40]

Chenopodium probstii Aellen *Probst's Goosefoot* ● th 7

A wool, grain and bird-seed alien

East Berks: by the river bridge next to the M4/A33 Interchange [709702] in August 1999

West Berks: found on arable land at Bradfield [589722] in 1988 (**RNG**)

Chenopodium quinoa Willd. *Quinoa* ● th 7

A trendy vegetable that is also grown in and around spinneys as cover and fodder for pheasants. This was a staple crop in South America at the time of the Spanish conquest of the Andes, where its grains were used for making bread or porridge.

East Berks: Reading tip (1999)

West Berks: grown as food for game birds on Sheepdrove organic farm north of Lambourn [3482] in 2002-04

Atriplex littoralis L. *Grass-leaved Orache* th 8

One of the less common members of the roadside salt-adventive community. It grows with *Puccinellia distans* and *Spergularia marina*.

West Berks: discovered by John Killick at the Marcham Road Interchange on the A34 [4796] when there were about 20 plants, and by Susan Erskine, 4km further north on the sliproad at Sunningwell [508004], both in 2004.

Beta vulgaris L. *Beet*

Beta vulgaris subsp. **maritima** (L.) Arcang. *Sea Beet*
Beta maritima L.

• h 7

Very local and rare, but thoroughly naturalised where it occurs.

Silwood Park: naturalized within an area of about 400 m² around the Header House, with more than 200 plants in summer 2000. These are the self-sown offspring of potted Sea Beet plants that were used in hybridisation experiments with sugar beet in 1992. Plants maintain a tenacious hold over cracks between paving stones and at the bases of walls. They hold their own in competition with *Urtica dioica*, *Epilobium hirsutum* and *Oenothera cambrica* on disturbed waste ground between the greenhouses. They spread into grassland as a result of soil disturbance associated with the new Jiff Greenhouses in August 2000. By the spring of 2004, all of the larger individuals had died of old age, and only a few seedlings had escaped the herbicides of the greenhouse technicians. There was one young plant in the gravel behind the CABI building in June 2004. A common-garden collection of 16 native sea beet genotypes from all around the British coastline was grown for 2 years in 1993-94 at Ashurst Warren in order to look for evidence of introgression with sugar beet in east coast populations. None of these plants survives today, having been buried beneath matting mulch prior to the construction of the Railway Sleeper beds in 1995.

West Berks: no records

PORTULACACEAE

Montia fontana L. *Blinks*

hel 4

Wet places on heathy ground, seasonally damp hollows, and damp lawns on acid sands. Locally common. Much scarcer in the north and central parts of the county. Common and generally distributed on the damper heathlands of the south and west. Damp flushes in oak and alder woods, and marshes on acid soils. Local but decreasing in south Berkshire, very local in north Berkshire.

The two subspecies are distinguished by their seeds; subsp. *chondrosperma* has jet black seeds with broad, rounded tubercles all over their faces as well as their margins, while subsp. *amporitana* has shiny seeds which are smooth near the centre of their faces. Both subspecies have the whole surface of the seed partitioned into polygons, so the smoothness of subsp. *amporitana* does *not* mean a lack of polygons in the centre of the face of the seed.

Montia fontana subsp. **amporitana** Sennen
M. fontana subsp. *intermedia* (Beeby) Walters

Druce regarded this as a larger plant (his var. *major*), and much rarer in Berkshire.

East Berks: Windsor Great Park, Silwood Park (I do not know this record, and I suspect an error)

West Berks: Greenham Common [46], Cold Ash [56], Bucklebury [57]

CARYOPHYLLACEAE

Arenaria balearica L. *Mossy Sandwort*

• chh 6

A naturalised garden plant found in damp places on paths and walls. Known from *A. serpyllifolia* by its procumbent habit and its petals longer than sepals.

West Berks: on an old wall in Aston Tirrold (OXF) [5586] from 1976-1980, and in a conifer plantation in Benham Park [4467] in 1987.

Minuartia hybrida (Vill.) Schischk. *Fine-leaved Sandwort*

th 5 ↓

Minuartia hybrida subsp. **tenuifolia** (L.) Kerguelen

Arenaria tenuifolia L.

Minuartia tenuifolia (L.) Hiern, non Nees ex C. Martius

Arenaria hybrida Villars

Dry sunny places in chalk grassland, on stony ground, open heathland, cinder tracks, and limestone wall tops; very local and sporadic. Easy to recognise with its 3 stigmas and the absence of non-flowering shoots.

East Berks: local and rare on walls near Ruscombe (pre-1897), Hurst (RNG) in 1900, Whiteknights Park in Reading (RDG) in 1933. Probably extinct, except perhaps still in Reading. Atlas 2000: no records.

West Berks: Buckland [39] and Pusey pit [3596], Cothill on the village walls [4699], the Dog House Inn at Frilford [448986], Hermitage [57], Churn, Fair Mile and Moulsoford [58], Radley Station [59], Basildon church [67]. Recently recorded from short heathy turf next to the southern runway on Greenham Common [506644] (1999-2004) and colonizing bare gravel where the former runway was removed [495647] in May 2004. Atlas 2000: [46], [57], [58]

Stellaria pallida (Dumort.) Crép. *Lesser Chickweed*

th 3 ↓

Alsine pallida Dumort.

Stellaria apetala auct., non *Ucria* ex Roemer

Stellaria boraeana Jordan

Bare, sandy disturbed ground, and on dry stone walls. "A small apetalous form which usually has much yellower foliage than *S. media* occurs at Sonning, Earley and Cookham" (Druce, as *S. media* var. *boraeana*). All the old records in Druce were considered doubtful by Bowen. Told from *S. media* by stamens 1-3 (not 3-8) and sepals < 3mm. Petals are usually absent and the seeds are less than 0.8mm. You need to search for this plant in March or April to stand any chance of being able to identify it.

East Berks: Woodley sewage tip [7570] in 1960 and Coleman's Moor [777731] in 1963.

West Berks: there are no herbarium specimens to confirm Druce's nineteenth century records from Shrivvenham [28], Hungerford [36], Abingdon [49], Wytham [40], Blewbury and Streatley [58]. Collected by Tony Mundell and Pete Selby at AWRE Aldermaston [5963] on 2 May 2003 (herb. A.R.G. Mundell).

Stellaria neglecta Weihe *Greater Chickweed*

h 4 ↓

Stellaria umbrosa auct., non Opiz and Rupr., nom. nud.

Alsine neglecta (Weihe) Á. Love and D. Löve

Shady hedge-banks on sandy soil, damp wood margins, river banks on sandy soil, in small quantity. Local and decreasing. Told from *S. media* (which also has hairs in 2 lines down each internode) by the larger sepals (5-6.5mm, not 2.7-5.2mm) and more numerous stamens (8 or more, not 3-5 or rarely up to 8).

NVC: MG 13

East Berks: very local, in a 10km strip between the R. Loddon and the R. Blackwater (east of 70 and west of 80) centred on Arborfield (OXF) [7567]. Leighton Park (1962), Emmbrook (1967), Jouldern's Ford [7463] (1918), Sandhurst (1899), Cookham (1918), Shinfield (1965 and 1974), in a copse near Loddon Bridge (OXF) in 1918, and by the Loddon at Woodley [766713] in 1984. By the R. Blackwater below Farley Hill [7463] in 2001.

West Berks: only 3 records from a shady hedge-bank near Aldermaston [56] pre-1897, a damp open wood at Aldermaston Mill (LAN) [5966] in 1961, and Turf Pits Covert [39] in 1979. In the Enborne Valley below Greenham Common [4862] and below Hyde End [5563], and by the Foundry Brook below Stratfield Mortimer [6663] in 2002.

Stellaria palustris Retz. *Marsh Stitchwort*

hel 5 ↓

Stellaria dilleniana Moench, non Leers

Stellaria glauca With.

A local speciality of bogs, marshes, wet ditches and meadows, "preferring the company of other herbage" (Druce). Fens and damp, nutrient-rich pastures; frequent by the Thames. Now a distinct rarity as a result of agricultural "improvements" of water meadows. Like *S. graminea* but lacking that species ciliate bracts and outer sepals. The field jizz is easy, because *S. palustris* is a pale, greyish plant rather than a bright, lime-green one.

NVC: M 24; S 24

East Berks: moist meadows by Eton (1805, but probably in Buckinghamshire, v.c.24), ditches by the Thames at Bisham, Medmenham and Cookham, near Wellington College, meadows about Wargrave, Sonning, Coleman's Moor, Finchampstead (RNG) in 1922, Great Lea Pond (RNG) [7168] in 1957. Near Loddon Bridge, Whitley (LAN) in 1956, New Bridge on the Blackwater, near Ruscombe. Eversley [760631] in 1968, Sonning [765767] in 1995, Arborfield, Remenham, Cock Marsh [881867] in 1992, with *Oenanthe fistulosa*, just to the west of Pond 1 at Cock Marsh [880868] in 2000-04.

West Berks: Cothill fen [49], Newbridge, Swinford Bridge and Wytham meadows [40], Thrupp Farm and Radley [59], Abingdon [49], Sandford Lock and Iffley [50], Cholsey and Moulsoford [58], Kintbury [36], Newbury [46], Thatcham [56], Basildon and Burghfield [67]. Extinct in Kennet valley [36] to [56] according to Bowen.

Cerastium fontanum subsp. **holosteoides** (Fr.) Salman, Ommering and de Voogd

Cerastium holosteoides Fries

Cerastium fontanum Baumg. var. *holosteoides* (Fries) Jalas

Cerastium holosteoides Fries var. *glabrescens* (G. Meyer) N. Hylander

Cerastium fontanum Baumg. subsp. *glabrescens* (G. Meyer) Salman, van Ommering and de Voogd

A plant of wet places. The lower stem internodes are hairless or with hairs in 2 lines (rather than hairy all round as in subsp. *vulgare*). A local and uncommon plant in Berkshire.

East Berks: meadows by the Blackwater River

West Berks: sparingly in the Kennett valley

Cerastium diffusum Pers. *Sea Mouse-ear*

th 5

Cerastium tetrandrum Curtis, nom. illegit.

Cerastium atrovirens Bab.

Cerastium subtetrandrum sensu Druce, non (Lange) Murb.

Told by its completely herbaceous bracts (lacking scarious tips) and 4 (not 5) petals and stamens.

East Berks: a rare colonist, on railway tracks at Bracknell in 1895 (**OXF**).

West Berks: at Didcot Station [5290] near the eastern end of Platform 5 from 1993-95. On compacted ground at AWRE Aldermaston [5963] in May 2003 (herb. A.R.G. Mundell).

Cerastium pumilum Curtis *Dwarf Mouse-ear*

th 4 ↓

A local, early-flowering speciality of sunny, bare places in calcareous grassland. Very local and rare. Druce had no records of this plant. Told from *C. semidecandrum* by its relatively long petals (about as long as the sepals rather than distinctly shorter than them), and by the upper bracts which have much less "tissue-paper" about them (scarious for the apical quarter or less, rather than for the apical third or more).

NVC: CG 2

East Berks: no records

West Berks: very local and rare; all but one of the records confined to [58]. On bare calcareous ground at Wytham pit [40] in 1967, between Streatley and Lowbury [58] in 1935, Blewbury Downs (**OXF**) [58] in 1883, Ilsley Downs (**OXF**) [58] in 1920 and Churn [58] in 1930. Atlas 2000: [40]

Moenchia erecta (L.) P. Gaertn., B. Mey. & Scherb. *Upright Chickweed*

th 5 ↓

Sagina erecta L.

An early-flowering annual, confined to heathy commons, and dry banks on acid, nutrient-poor soils; very local and decreasing. This is a scarce species in Britain, found on open, shallow soil in dry grasslands that are seasonally parched; often with *Ornithopus perpusillus*. Declining through cessation of grazing and incursion of rank species. An annual with 4 of everything: 4 sepals, 4 entire petals, 4 stamens and 4 styles. Rather like a miniature greyish *Stellaria holostea* with flat leaves (rather than the wiry leaves of *Minuartia hybrida* or *Sagina* spp). The fat, silvery sepals give the plant a really obvious jizz, despite it being so tiny.

Ascot: known to Druce from Ascot Racecourse (1897), but not seen since.

East Berks: Green Park in Windsor Great Park (**BM**) in 1847, near the railway between Bracknell and Ascot (also on the Surrey banks of Virginia Water). Wellington College, Finchampstead Ridges (1960). Woodley (**RNG**) in 1934, College Farm Reading (**RNG**) in 1916. Bowen believed it to be extinct in all its eastern sites (east of 90), and to survive only at Finchampstead Ridges. Atlas 2000: no records.

West Berks: restricted entirely to the heaths of the Kennet valley. Greenham Common and Wickham Heath [46], Snelsmore Common [47], Bucklebury Common, Mortimer and Thatcham [56], Burghfield Common (**RNG**) and Pond Green, Padworth [66]. The best place to see the plant these days is on Greenham Common, in short (closely mowed) heath south-east of the former runway [505643]. Atlas 2000: [46], [47], [56], [57], [66]

Sagina nodosa (L.) Fenzl *Knotted Pearlwort*

h 7 ↓

Spergula nodosa L.

Short, damp grassland in fens and water meadows, and more rarely in chalk grassland. Bowen thought the plant extinct in both East and West Berkshire. Told from other *Sagina* spp. by its long petals (2 times as long as the sepals) and by the fact that the leaves at the uppermost whorls are very short (less than one third) compared to the leaves at lower whorls (in the other species, the topmost leaves are more than half the length of the lower leaves).

East Berks: very local at Winter Hill and Cookham Down in 1897. Considered extinct, but rediscovered above the water meadow at Cock Marsh [8985] in 1968. In chalk grassland above the marsh in 1992 at [879866] (I suspect this is the same site as the 1968 record despite the latter's grid reference). Still there in July 2002, on a bare track through dry chalk grassland about 5m away from the edge of the marshy ground. Found by Tony Mundell on a grassy ride near Deer Rock Hill on the Berkshire side of Wishmoor Cross [8810 6363] on 19 September 2004. Atlas 2000: [88]

West Berks: extinct in both its former epicentres on the peat pits at Kintbury [36] and Bagnor Marsh [46] in the Kennet valley and in the Thames meadows around Abingdon [59]. Found in a new station in Hungerford Meads [3368] in 1969, and rediscovered in 1972 and 1988. Atlas 2000: [36]

Sagina subulata (Sw.) C. Presl *Heath Pearlwort*
Spergula subulata Sw.
Sagina pilifera auct., non (DC.) Fenzl
Sagina glabra sensu Lousley et auct., non (Willd.) Fenzl

chh 6 ↓

Heaths, very local on sand or gravel paths and bare places. “In profuse flower in May, it is a noticeable feature of the bare roadsides in the heathy districts” (Druce). Not these days, sadly. Told from *S. procumbens* by its possession of 5 sepals and usually 10 stamens (*S. procumbens* usually has 4 sepals and 4 stamens).
 NVC: OV 20

East Berks: near Bray, Sandhurst (**OXF**) in 1897, Bagshot Heath, Wellington College, Ambarrow, Bracknell, Whitmoor Bog by the side of the railway, Long Moor, abundant in Windsor Great Park gravel-pits, and by the road from Sandhurst to Swinley, by the railway from Bracknell to Ascot. Local, rare and decreasing, not found in any of Druce’s locations by Bowen. One recent record from wet sand in Broadmoor Bottom [8763] in 1987. Atlas 2000: [76], [86]

West Berks. only 3 records: Hamstead Marshall [46] in 1959, Boars Hill [40] in 1918 (probably extinct), Three Firs Burghfield (**RDG** and **RNG**) in 1919 – 1929 and Ufton Park in 1961 [66]. Atlas 2000: no records.

Scleranthus annuus L. *Annual Knawel*

th 6 ↓

Dry sandy cornfields, dry woodland rides, and disturbed ground and heathy ground on acid sandy soils. Druce considered the plant to be “locally abundant although absent from large areas of the clays and chalk”. Now much decreased, probably as a result of eutrophication (e.g. atmospheric inputs of nitrogen, fertilizer drift, etc.) and herbicides; now a very rare weed of arable fields on acid sandy soils.
 NVC: OV 1

Ascot: the plant was known to Druce from Sunninghill in 1897, but there are no 20th century records from the district. Not in Silwood Park.

East Berks: Druce considered the locations to be too numerous to mention. Known to Bowen from Finchampstead, Sandhurst, Wokingham, Wellington College, Ashley Hill, Maidenhead, Cookham, Farley Hill, Leighton Park, Whiteknights Park, Jouldern’s Ford, Arborfield, Woodley, Twyford. Occasional in the south-east, centred on Barkham [7867], with outliers on the northern loop of the Thames from Twyford [7875] to Bray [9079]. Atlas 2000: [77], [87]

West Berks: a curious distribution, occasional throughout the Northern Loop but absent everywhere else, save for a few outliers around Boxford [47]. Buckland and Longworth pit [39], Kintbury [36], Boxford and Hemley Copse [47], Frilford and Tubney Wood [49], Foxcombe Hill and Youlbury [40], Didcot and Radley [59], Bagley Wood [50], Englefield [67]. The population in the Buckland Warren arable conservation plot [333962] was last seen in 1998. Atlas 2000: [36], [39], [46], [49], [40], [56], [57], [58], [59], [50], [66], [67]

Illecebrum verticillatum L. *Coral-necklace*

th 9 ↓

A late-flowering local speciality. “Found in 1891 by A.W.S. Fisher on the borders of pools and on damp sandy ground in heathy districts at the western end of Nine Mile Ride near Wellington College on Mr J. Walter’s estate of Bearwood, growing with *Radiola linoides*, *Hydrocotyle*, *Ranunculus flammula*, *Drosera rotundifolia*, *Veronica scutellata* and *Juncus bulbosus* with pines and rhododendrons nearby; the occurrence of this Cornish and New Forest plant in Berkshire is of singular interest” (Druce). Acidic woodland rides and margins of acid ponds; very local and rare. This is a scarce plant in Britain, found on seasonally wet, sandy or gravelly tracks and heathy lawns on acid soils, often growing with *Gnaphalium uliginosum*.

East Berks: a wood in Finchampstead (**RNG**) [7563] in 1927, Wellington College pond (**OXF** and **RNG**) [8363] in 1891, 1910, 1914 and 1956, Crowthorne (**OXF** and **RDG**) [8463] in 1958, Kingsmere (**RNG**) [8164] in 1915 and 1948, Queens Mere (**OXF**) in 1929, California-in-England (**RNG**) [8065] in 1936, Easthampstead Park (**RNG**) [8467] in 1944 and [8667] in 1951, Heath Lake [828652] in 1961, Bracknell [8765] in 1952, lower slopes of Finchampstead Ridges [8063] in 1967. Still at Heath Lake and perhaps on the inaccessible private land at Kingsmere or Queens Mere.

West Berks: no records

Spergularia marina (L.) Griseb. *Lesser Sea-spurrey*
Buda marina Dumort
Arenaria rubra L. var. *marina* L.
Spergularia salina J.S. Presl and C. Presl

th 6 † & • th 6 ↑

A local speciality, first record by Druce in 1890 from the famous saline meadow to the south of Marcham [49]; there were still 10 plants from a saline ditch in Marcham [454959] in 1964. Sadly, the site is now destroyed. Now confined to roadside salt adventive communities as an alien. Told from *S. rubra* by its bigger seeds (> 0.6mm) and by the fact that its stipules are fused for more than one third of their length (look at young shoots).

East Berks: now an occasional but locally abundant component of the road-salting community established along motorways and dual carriageways throughout the county. There were no roadside records from Berkshire before Atlas 2000 recording, but to judge from its current abundance it has obviously been overlooked for quite some time. Very abundant where the A33 crosses the M4 south of Reading [7168] in 1997-2004. Common in Bray Wick on the edge of the A308 [8979] and frequent on the Thames crossing at Windsor [9577] 1998-2004. <1% (1km²). Atlas 2000: [76], [87]

West Berks: on the roundabout at the junction of the A420 and the A417 [300952] in 2004. Atlas 2000: [37], [47], [49] but probably all along the M4 and the dual carriageway of the A34.

Agrostemma githago L. *Corncockle*
Lychnis githago (L.) Scop.

○ th 6 † and ● th 6 ↑

Formerly a cornfield weed chiefly on light soils, but now an occasional garden escape and an increasing member of the seed bank community. Often moved around in topsoil and occurring the year after topsoil has been dumped or spread during landscaping works. Likely to appear following soil disturbance wherever it was formerly grown, most likely to be seen close to buildings but could occur almost anywhere, even on arable land if and when it escapes herbicide application. It is so widespread as an alien that identification of putative native sites is impossible.

Silwood Park: very local and rare on waste ground at the Header House, origin unknown, where there were 2 plants behind the CPB greenhouses, and 2 more in pavement cracks below the wall of the Header House on 17 May 1993. Not seen since. Buckhurst Road Entrance, 1 plant in July 1999. On the student's allotments in Silwood Bottom in June 2003, apparently sown with other cornfield weeds like *Anthemis arvensis* and *Chrysanthemum segetum*.

East Berks: common opposite Bisham woods, Wellington College, Reading (RDG), Remenham, Sonning, Virginia Water, Jouldern's Ford, Farley Hill, Clewer, Maidenhead, Hurley, Wargrave, Shinfield (RDG). Formerly a frequent weed on arable land along the Surrey border and by the Thames (e.g. Cookham in 1954), but rare and sporadic these days. Now a frequent casual and garden escape: Bulmershe, Crazies Hill, Edgebarrow Hill, Wellington College, Braywoodside, North Town Moor. 1% (1km²). Atlas 2000: [77], [78], [86], [87], [88], [96]

West Berks: formerly on arable land in the Northern Loop of the Thames valley. The old records were strongly clustered in the south-east around [57] and [67], with no records at all from the chalk. Recorded from the Royal Military College of Science at Shrivenham [28] in 1952. Kintbury [36], Shefford [37], Pusey, Carswell and Buckland [39], Newbury and Benham Park [46], Tubney, Marcham, Frilford and Abingdon [49], Wytham [40], Hermitage and Bucklebury [57], Moulsoford, Streatley and Blewbury [58], Kennington [50], Mortimer (RNG) and Padworth [66]. Basildon, Tilehurst, Bradfield, Tidmarsh and Theale [67]. Common by the new bypass at Kingston Bagpuize [4098] from 1990-92 until succession took its course. There was a roadside display of rare arable weeds, presumably planted, at Upper Lambourn [3180] in July 2003. Atlas 2000: [29], [39], [49], [58], [59], [66], [67]

Silene nutans L. *Nottingham Catchfly*
Silene dubia auct., non Herbich ex Rohrb.

hs 5 †

Dry grassland, and open, disturbed ground; always very rare, now extinct
NVC: CG 2; MG 1; OV 39,41

East Berks: Wellington College (OXF) last reported in 1927.

West Berks: a single record from Frilford Golf Course [49] by Dr Smith in 1929.

Silene noctiflora L. *Night-flowering Catchfly*
Melandrium noctiflorum (L.) Fries

○ th 7 ↓

Dry cornfields, especially on sandy calcareous soils; local in the Thames Valley. Much declined as a result of herbicide and fertilizer application. Commoner in spring- than in autumn-sown cereals.
NVC: OV 16

East Berks: formerly abundant about Wargrave, Remenham, Twyford, Maidenhead, Hurley, Sandhurst, Sunninghill. "The flowers, which are yellow on the outside and rose-coloured on the inside, offer a ready means of distinguishing it at a glance from the much commoner *S. vulgaris*" (Druce). Bowen thought the plant extinct in this district. Once common on the Thames valley chalk from Twyford, through Wargrave, Remenham, Hurley and Maidenhead, but few post-1985 records. Atlas 2000: [77]

West Berks: scattered records from the Thames valley all the way from Lechlade [29] to Pangbourne [67] and an area south-west of Reading centred on Theale [67]. Recent records include Kingston Lisle [38] in 1990, Frilford Heath golf course [447987] in 1981,

Lower Seeds at Wytham [40] in 1971 and 1987, Thatcham Marsh [56] in 1974, Aston Upthorpe Down [58] in 1982, Riddle Hill [58] in 1977, Appelford [59] in 1977. Atlas 2000: [39], [40], [58], [59], [50], [67]

Silene gallica L. *Small-flowered Catchfly*

o th 6 ↓

Silene anglica L.

Silene quinquevulnera L.

A local speciality of sandy cornfields and gravelly waysides; very rare or extinct as a result of heavy use of herbicide and fertiliser. A scarce plant in Britain, growing as a winter-annual weed of cultivated or disturbed ground on sandy soils. Occasionally found as a casual from imported clover seed. Known from other annual campions by its hairy leaves and stems, and its short (< 12mm) calyx with long, spreading hairs. Extinct at most if not all of its former sites.

East Berks: local and rather rare. Wellington College, Wokingham (**OXF**), Remenham, Ambarrow, Finchampstead, abundant in fields near Bracknell all pre-1897. Rare and decreasing. Wokingham (1890), Finchampstead (1966), Binfield (1953). Atlas 2000: no records

West Berks: absent from the centre of the region, with scattered records from the north-western part of the Thames valley and from the south-eastern parts of the Kennet valley. Becket Park [28] in 1982, Buckland Warren [39] in 1966, Crockham Heath [46] in 1965, Tubney [49] in 1833, Cothill [49] in 1908, Boars Hill (**OXF**) [40] in 1890, Midgham (**OXF**) [56] in 1890, Tutts Clump [57] in 1963, Mortimer [66] in 1897, Tilehurst (**RDG**) [67] in 1913. Atlas 2000: no records

Silene conica L. *Sand Catchfly*

th 5

Pleconax conica (L.) Sourk.

A local speciality of bare places in nutrient-poor sandy grassland. Very rare and sporadic. Druce thought that it “has no claim to be considered native in Berkshire”. Bowen, however, considered it to be native at Frilford where Druce had found it (**OXF**), and it is accepted as native in Atlas 2000.

NVC: U 1

Silwood Park: sown as an unintended component of a wildflower seed mixture on North Gravel, opposite the (then) brand new Southwood Halls in May 1983. First flowers seen in June 1984 in good numbers along the edge of the grass track past Immunology, when there were 5 patches, each of 10 or so plants. Thorough, repeated searches in 1985 failed to reveal any plants, and not seen since. The site was subsequently destroyed during the construction of Flowers Halls.

East Berks: no other records

West Berks: the celebrated, allegedly native, site on Frilford Heath has many records spanning the decades following its discovery by Druce in 1913 (**RNG**, **RDG** and **OXF**). The plant fluctuates greatly in abundance from year to year (e.g. 10 in 1974, 3 in 1975 and 1 in 1981), but there are two extant patches, each a few metres square at [442974] and [448987] in 2002. Also at Hitchcopse pit [453997], Dry Sandford pit [465996], and in set-aside land nearby [447981] in 2001-04. With other aliens at Newbury [46] on garden ground near the railway in 1858. Atlas 2000: [49]

Petrorhagia prolifera (L.) P.W. Ball and Heywood *Proliferous Pink*

th 7 †

Dianthus prolifer L.

Tunica prolifera (L.) Scop.,

Kohlruschia prolifera (L.) Kunth

A rare casual of sandy places. Hard to tell from *P. nanteuilii* since identification requires microscopic inspection of the seeds. The seeds are reticulate on the surface (rather than tuberculate in *P. nanteuilii*).

East Berks: very local and rare near Windsor (1897). Extinct casual. No specimen seen.

West Berks: collected by Druce at Boars Hill [40] in 1894. Long extinct.

Dianthus deltoides L. *Maiden Pink*

ch 6 ↓

One of our local specialities. Old walls, sandy places, etc. “The Pink which grows by the highway sides of the sandy hill you descend going from Nottingham to Lenton, I find to be the same which grows ... in many places in Berkshire” (Ray, 1670). “Mr Tufnail tells me it is well established at Messrs. Sutton’s farm in the grassy borders, probably introduced with foreign seeds” (Druce). Known by its single (not clustered) flowers and its shortly-hairy (not glabrous) lower stems. The flowers are scentless.

Silwood Park: a rare garden escape, on the stone base of the Wishing Well in July 1983. Not seen since. Both pink and white flowered forms were locally frequent on the edge of the cinder pot-standing at The Greenhouses in June 2002.

East Berks: dry grassland on acid soils. Very local in Suttons grounds (the celebrated seed merchants) at Reading (**RDG**) in 1897, 1919 and 1979 [733737], and at Wellington College (1907) but Bowen failed to see it at either of these sites. On the fifth fairway of Sonning golf course (1965), Bearwood (**K**) [7768] in 1945. Atlas 2000: [76], [77], [86]

West Berks: Greenham golf course [46], Honey Bottom (**OXF**) and Bussock Hill House [47], Frilford Heath Golf Course on the edge of the rough [49] from 1930 to 1990, planted at Jarn Mound [40], Brimpton [56], Bucklebury [5570], Bagley Wood [5102]. Garden escapes on waste ground near the canal in Newbury [4767] in July 2002. The principal surviving populations are on Frilford Heath [443975], [447989] and [446985]. Atlas 2000: [47], [49]

Dianthus armeria L. *Deptford Pink*

th 7 ↓

Sandy fields and hedge-banks, on gravelly soil in sunny exposures. A scarce plant as a native in Britain. An annual or biennial of dry pastures, field borders and hedgerows where the grass is kept short by grazing or management. Not uncommon as a garden escape. Told by its compact cluster of multiple (not single) flowers, lacking sterile shoots at flowering time (unlike the perennial *D. barbatus*).

East Berks: a local speciality, but probably extinct in its native sites as a result of habitat destruction during the inexorable eastwards sprawl of suburban Reading. Recorded first by Merrett in 1666 from Earley Heath and then by a succession of botanists for over 260 years at the same site: this is amazing site tenacity for such a rare annual. Druce (**OXF**) saw it in 1896 (the site was then called Loddon Bridge), and J. Auger was the last to see it in 1935 (when the site was called Woodley). At Arborfield (**K**) in 1831. There are also records from Windsor (by H. Sibthorp in 1780), Maidenhead, Winter Hill, Cookham (**OXF**) in 1932, in a waste, disused portion of the brickfields at Crazy Hill (1897), near Wellington College (1897), Aston Lane (1890), Clewer (1897). At Crazies Hill (again) in 1999 but as a garden escape. Not seen as a native in East Berkshire since 1935. A single plant in landscaping of roadworks at the new roundabout where the Drift Road crosses the A330 south of Braywoodside [873750] in 1997. Gone by 1999 having succumbed to competition from sown grasses. Probably imported as seed in topsoil. Atlas 2000: garden escapes at [77], [88]

West Berks: Carswell [39], Clay Hill, Bucklebury [57], Kennington [50], Pangbourne (**OXF**) in 1844, Great Bear (**RDG**) in 1915, Bradfield College, Englefield in 1833 and Tilehurst (**RNG**) in 1952 [67]. Atlas 2000: a garden escape in [67]

POLYGONACEAE

Persicaria mitis (Schrank) Assenov *Tasteless Water-pepper*

th 6 ↓

Polygonum mite Schrank

Polygonum laxiflorum Weihe

Persicaria laxiflora (Weihe) Opiz

Polygonum hydropiper L. subsp. *mite* (Schrank) Munshi and Javeid

A local speciality of ditch sides, streams, ponds, cattle-poached wet grassland and damp arable fields in low-lying situations; local. Scarce on wet mud or peat, exposed in summer as the water level falls in ditches, wet hollows and cattle trampled patches, always in full sun. Much confused in the past with both *P. hydropiper* and *P. minor*, but distinguished as follows: (1) lacks the sharp taste of *P. hydropiper*; (2) bristles at the tips of stipules > 3mm; (3) glands lacking or very sparse on the perianth and peduncle; (4) leaves less than 5 times as long as wide; (5) large achene 2.5-3.5mm (*P. minor* has achenes 2-2.5mm).

East Berks: Swinfield, Bulmarsh, Bray, Wargrave, Aston, Riseley, Whitley Green. Ruscombe Lake (1959), Warfield (1963), Queens Eyot [912784] (1988), Cock Marsh (2000-04). Rare in the Thames valley, absent to the south of 70. <1% (1km²). Atlas 2000: [88], [97]

West Berks: rare in the Northern Loop, extinct at many of its southern sites, and absent from all of the interior. Sandleford [46], Cothill [49], Newbridge, Harts Weir, Northmoor Loch, Swinford and Wytham [40], Thrupp and Barton Court [59], South Hinksey [50]. Atlas 2000: [40], [50]

Persicaria x wilmsii (Beck) Soják = **P. mitis** x **P. minor**

West Berks: collected by Druce at Wytham [40] in 1892 (**OXF**) and from Abingdon [59] in 1897.

Persicaria minor (Huds.) Opiz *Small Water-pepper*

th 8 ↓

Polygonum minus Hudson

Wet meadows and marshy ground, margins of ponds and ditches; local and rare. Bowen considered the species to be extinct in Berkshire but it has been re-found at Cock Marsh. It often grows with both *P. hydropiper*, *P. maculata* and *P. mitis* (see above) along with *Bidens cernua* and *B. tripartita*. Slightly more acidic and higher nitrogen preferences. Declined with the loss of farm ponds and greater reduction of summer water levels. Told from *P. mitis* by its longer (more than 5 times as long as wide) and narrower leaves (2-15mm wide) and by its smaller achenes (2-2.5mm).

Ascot: first record Sunninghill (**BM**) by Sir Joseph Banks in 1773.

East Berks: Riseley (1897), Coleman's Moor (1897), Hurst (1918), Whitley Green, Loddon Bridge (1897). Cock Marsh [880867] (1982-2004), so still worth looking for. <1% (1km²). Atlas 2000: [88]

West Berks: extinct. Formerly at South Hinksey [50] in 1860, Wytham meads [40] in 1897, Abingdon [59] in 1918 and 1943. Atlas 2000: no records.

Fagopyrum esculentum Moench *Buckwheat*
Fagopyrum sagittatum Gilib., nom. inval.

• th 7 ↓

Waste places and open places in woods, especially where game birds are fed. Rarely sown, often casual in arable fields, waste ground and tips. Used as hamster food and bird-seed.

East Berks: Arborfield, Reading, Twyford, the railway at Maidenhead, Sunninghill, Windsor. Reading, Owlsmoor, Cookham, Woodley tip (1969), at 8, Glebe Road Reading, as a bird-seed alien (1984). <1% (1km²). Atlas 2000: [88]

West Berks: Inkpen [36], Inholmes and Shefford Woodlands [37], Newbury [46], Catmore [48], Abingdon [49], Lowbury [58], Didcot, Long Wittenham and Little Wittenham Wood [59]. Atlas 2000: [48], [49], [40], [59]

Fallopia dumetorum (L.) Holub *Copse-bindweed*
Polygonum dumetorum L.
Bilderdykia dumetorum (L.) Dumort.
Reynoutria scandens (L.) Shinn. var. dumetorum (L.) Shinn.

th 7 †

A self-pollinated annual with a long-lived seed bank, found on woodland margins, open woodland, coppice and hedgerows on well drained soils. Probably extinct, but still surviving in Oxfordshire.

East Berks: Druce recorded the plant from “near Sandhurst on the fence of a garden but I think native” (**OXF**) in 1895. Extinct by Bowen’s time. Atlas 2000: no records

West Berks: rare and declining, Boars Wood (**OXF**) [4802] in 1895, Appleton (**OXF**) [4401] in 1891, Tilehurst (**OXF**) [6874] in 1896, Tubney Wood [40] in 1968 (**RNG**), White Hart Wood [40] in 1965. In a chicken run at Winterbrook [6088] in 1963. Atlas 2000: no records

Rumex salicifolius T. Lestib. *Willow-leaved Dock*
Rumex salicifolius Lestib. f. subsp. triangulivalvis Danser
Rumex triangulivalvis (Danser) K.H. Rech.
Rumex salicifolius Lestib.f. var. triangulivalvis (Danser) J.C. Hickman

• hp 7 †

East Berks: not in Druce. A rare casual; Twyford Mill (1925) (**OXF**).

West Berks: Didcot [59] in 1927 (**OXF**)

Rumex pseudoalpinus Höfft *Monk’s Rhubarb*

• hp 7

A rare relic of former cultivation, typically found near ancient buildings.

West Berks: recorded from Buckland Warren [39] by Ms. J Buchanan in 1981, but without a specimen.

Rumex x lingulatus Jungner = **R. hydrolapathum x R. obtusifolius**

East Berks: Sandford Mill [77] in 1938 (**RNG**)

West Berks: St Neots Mead Abingdon [59] in 1892 (**OXF**), Midgham [56] in 1892 (**OXF**), Shefford [37] in 1927 (**OXF**)

Rumex x dimidiatus Hausskn. = **R. cristatus x R. crispus**

East Berks: on Reading tip [77] in 1962 (det. J.E. Lousley) (**LAN**). By the M4/A33 interchange in Reading [6970] in 2000. By the new Madjewski football stadium [706701] in 2001.

Rumex x lousleyi D.H. Kent = **R. cristatus x R. obtusifolius**

East Berks: by the M4/A33 interchange in Reading [6970] in 2000.

Rumex x abortivus Ruhmer = **R. conglomeratus x R. obtusifolius**

Reported from Berkshire by Stace (1975) without further details. Occurs frequently where the parents grow together.

East Berks: by the M4 in Reading (2000)

Rumex x schulzei Hausskn. = **R. conglomeratus x R. crispus**

East Berks: by the M4 in Reading (2000)

Rumex x knafii Celak. = **R. conglomeratus x R. maritimus**

Reported from Berkshire by Stace (1975) without further details. Occurs occasionally where the parents grow together, but this coincidence is rather rare in Berkshire.

East Berks: by the M4 in Reading (2000)

Rumex pulcher L. *Fiddle Dock*

hs 6 ↓

Roadsides, churchyards, disturbed dry grassland and waste ground near houses. Rare and sporadic, decreasing.

East Berks: Remenham Farm near the river and at Shurlock Row; extinct at its two stations since the turn of the century.

West Berks: scattered through the Thames valley but extinct at about half of its former sites. Compton Beauchamp [28], Faringdon churchyard, Hungerford and Kintbury [36], Buckland [39], East Ilsley [48], Frilford, Cothill, Abingdon and Drayton [49], Cholsey and Streatley [58], Sutton Courtenay, Didcot and Barrow Hills [59], Burghfield [66], Wallingford [68]. Most of the modern records are from churchyards, as at Marcham [49], Aston Tirrold and Cholsey [58] and Long Wittenham [59] all in 1990. Particularly common at Drayton [479945] in 1996. Atlas 2000: [29], [48], [49], [58], [59], [66], [67], [68]

Rumex palustris Sm. *Marsh Dock*

hs 6

A casual with us, most commonly found on freshly landscaped topsoil, presumably from a long-lived seed bank. The native habitat is wet nutrient rich mud at the edge of ponds and in marshes. It is curious that so much apparently suitable habitat in Berkshire should be unexploited.

Silwood Park: on bare ground on the Reactor Bank, presumably from dormant seed dug up when the foundations of the wind tunnel were excavated. Lasted for one year in 1982, then never seen again, despite attempts to bring it back by soil disturbance.

East Berks: not in Druce. A rare casual on rubbish tips. Reading tip in 1963 and on an old tip at [712710] in 1988. Atlas 2000: [96]

West Berks: a casual at Tilehurst [67] in 1963. Atlas 2000: [67]

Rumex maritimus L. *Golden Dock*

hs 6

Marshy places, margins of rivers and ponds and waste places that are waterlogged in winter.

Silwood Park: grown in CABI's open Polytunnel in 2004, presumably as a screening species in the campaign to find a biocontrol agent for *Fallopia japonica*.

East Berks: by the Garthing Lane bridge at Ruscombe Lake [813763] in 1959. Atlas 2000: [77]

West Berks: Sandford Lasher [50] in 1890, Pangbourne [67] in 1952, Sulhamstead [66] in 1970, gravel pits at Theale [6369] and [6569] in 1981, 1982 and 1983 (about 10,000 plants). Atlas 2000: [67]

Rumex x callianthemus Danser = **R. obtusifolius x R. maritimus**

A rare hybrid in Berkshire, because of the scarcity of *R. maritimus*.

East Berks: found by Paul Stanley (det. Eric Clement) on disturbed ground with both parents and many other dock hybrids opposite the Greyhound Stadium near the M4/A33 Interchange [710704] during the roadworks associated with construction of the new roads around Madejski Stadium in August 1999.

ELATINACEAE

Superficially like Portulacaceae, the two waterworts are distinguished by the pedicel 0 or very short in *E. hydropiper* and stamens 8 (not 6 as in *E. hexandra*). Submerged, non-flowering plants can not be distinguished with confidence. Told from *Callitriche* spp. by the possession of stipules in *Elatine* spp.

Elatine hexandra (Lapierre) DC. *Six-stamened Waterwort*
Tillaea hexandra Lapierre

hel 7 ↓

A local speciality of pond margins in very shallow nutrient-poor water, local and very rare. Scarce: an ephemeral on exposed wet mud or a full aquatic looking like *Callitriche* in the vegetative state. Grows with *Juncus bulbosus* on peaty sites and with *Littorella uniflora* on sandy sites. An annual, fluctuating widely in abundance. It can flower even when submerged.
NVC: A 22

East Berks: "Occurs in Virginia Water, near The Cascade, but this portion of the Lake is in Surrey; so far (1897) I have been unable to find it in the Berkshire part" (Druce). C.P. Petch found the plant on the Berkshire side of Virginia Water in 1946. It also occurs in Lower Lake in Sandhurst (**OXF**) in both sides of the Surrey / Berkshire border. It was in another pond, but nearly choked with *Littorella*, near Wellington College (**OXF**). Bowen considered the plant extinct at these 3 stations, but it was still present in the Surrey part of the pond in the Staff College Grounds in Camberley in 1952 (Lousley, 1976) and in 2002. Recent records include Heath Lake, Crowthorne [828652] in 1979 and 1987, and from gravel pits close to the Hampshire border by Yateley Bridge [828613] in 1977 (**OXF**) and [811623] in 1991. Common across the Hampshire border in lakes all over Bramshill Common [7560] and [7562]. Widespread in flooded gravel pits in the Blackwater Valley at Moor Green Lakes in 2000-03, especially in open habitats around the north and east margins of Grove Lake [8062]. Atlas 2000: [86]

West Berks: no records.

Elatine hydropiper L. *Eight-stamened Waterwort* hyd 7 †

A former local speciality, found on the sandy margins of two ponds. Bowen considered the plant extinct at both these stations. I, too, have looked for it and not found it.

East Berks: "excessively rare", found very sparingly in a pond near Sandhurst by Druce in 1896 (**OXF**)

West Berks: found in a pond at Mortimer [66] by E.C. Crutwell in 1917.

CLUSIACEAE

Hypericum x desetangii Lamotte = **H. perforatum x H. maculatum** *Des Etangs' St John's-wort*

Told from *H. perforatum* by the sepals which are toothed (not entire) towards the apex and not drawn out into a long point, and from *H. maculatum* by the leaves which are hairless beneath and the stem with 2 raised lines (not 4).

West Berks: found in Padworth gully [6065] in 1963. Still there in 1978 (**RNG**).

Hypericum maculatum Crantz *Imperforate St John's-wort* hp 6 ↓
Hypericum quadrangulum sensu L.(1754), non L.(1753)
Hypericum maculatum subsp. **obtusiusculum** (Tourlet) Hayek
Hypericum quadrangulum L. subsp. obtusiusculum Tourlet
Hypericum dubium Leers

Wet ditches, brook-sides, wood margins, very local and in small quantity. Told by its long petals (more than twice the length of the obtuse sepals), and its 4-ridged but unwinged stems.

East Berks: Wellington College (**RNG**) 1894-1918, Bulmarsh, Crazey Hill (1897), Colman's Moor (1897), R. Blackwater (1918). Not recorded by Bowen. Rare, but recent records from California Country Park, Dinton Pastures, Crazies Hill, Chawridge Bank, Brook Farm, Windsor Great Park. 1% (1km²). Atlas 2000: [76], [77], [78], [86], [87], [97]

West Berks: rare and declining, mainly along the upper reaches of the Thames from Lechlade [29] to Wytham [40]. Farncombe Down [27], Faringdon [29], Buckland Warren [39], Frilford (**OXF**) [49], Appleton Lower Common, Tubney Wood, Stroud Copse and Wytham [40], Greenham (**OXF**) [46], AWRE Aldermaston and Crookham Common airfield [56], Hermitage pits [57], Upton Station [58], in a railway siding at Fulscot Bridge, Didcot [59], Aldermaston Soke [66]. Atlas 2000: [38], [39], [46], [48], [49], [40], [56]

Hypericum montanum L. *Pale St John's-wort* hp 6 ↓

A local speciality, almost confined to the woods on the chalk. "In ye pits about the middle of Earley field and in ye land on ye right hand side of Loddon Bridge 3 miles from Reding" (Ray, 1680). A nationally scarce plant of warm, well drained soils on chalk on roadside banks, scrub, open ash woodlands, or in coarse grassland dominated by *Festuca ovina* and *Helictotrichon pratense*. Distinguished from *H. hirsutum* (which also has stalked black glands on the sepals) by the lack of conspicuous pubescence on its stems.

NVC: CG 2

East Berks: local and rare, mostly in dry beech woods on calcareous soil in the Thames valley, with an outlier at Finchampstead (1897). Remenham (1999), Ashley Hill (1966), Knowl Hill (1897), Bisham Woods (1961), Temple Golf Course (1984) Cookham Dean (1999). Bisham Wood, Wargrave, Finchampstead, Remenham, still found in the grounds of Park Place, Culham Court, Hurley,

between Stubbings Heath and Ashley Hill. Bowen confirmed most of Druce's locations. Now extinct at 3 of its 7 former sites. Now restricted entirely to the northern loop of the Thames from Park Place [7781] and Remenham [7783], Quarry Wood [8685] to Winter Hill and Cock Marsh [8887]. <1% (1km²). Atlas 2000: [78], [88]

West Berks: very local, absent from the entire area, save for a wooded enclave of c.10km radius, centred on Upper Basildon. Ilsley [48], Upper Basildon, Streatley (RDG) and Ashampstead Common [57], Blewbury [58], Bagley Wood [50], Bradfield, Lower Basildon, Tilehurst, Great Bear Wood (RDG) and Sulham Wood [67]. Atlas 2000: [48], [58], [50], [67],

Hypericum elodes L. *Marsh St John's-wort*

hel 6 ↓

Wet places on heaths, marshy margins of pools in heathy situations. Acid ponds and small pools in *Sphagnum* bogs; locally dominant but rare and decreasing. It forms a floating mat at the edge of a pond, where the *Molinia* tussocks give way to open water.

Ascot: locally abundant in shallow water on the southern edge of Englemere Pond, forming extensive rafts of foliage, and less frequently on the northern edge (1979-2004). By Sole's Pond to the east of Ascot Station in 1975. At the edge of Rapley Lake 1966-86. Tower Hill. Still at all of these sites in 2004.

East Berks: first record Bulmarsh Heath, two miles from Reading (1652). Sunninghill (1773), Windsor Great Park, Ascot, Bagshot Heath, Wellington College Lake, Sandhurst College Lake, Ambarrow, Caesar's Camp, Broadmoor, Owlsmoor, Long Moor, Bulmershe, Kings Mere, Heath Lake, White Moor. Confined to the south, but lost from many of its former sites as a result of urbanisation and pond filling. 1% (1km²).

West Berks: confined to the south, and centred on the commons from Newbury [46] to Burghfield [66]. Greenham Common [46], Sole Common and Snelsmore Common [47], Crookham Common, Bucklebury Common and Cold Ash Common [56], Padworth Common, Mortimer, Burghfield, Aldermaston decoy pond [66]

TILIACEAE

Tilia cordata Mill. *Small-leaved Lime*

mm 7

There may be some natives, but most individuals are planted trees in scattered localities, rarely as plantations (e.g. Enborne Copse [433660]). Told from *T. x europaea* by the way it holds its flowers obliquely erect above the foliage (not pendant amongst the foliage).

NVC: W 8,10

Ascot: planted in wild-looking vegetation on the western edge of Ascot Racecourse

East Berks: hedges and parks in very small numbers. Easthampstead Park, White Waltham, Bracknell, Windsor Great Park, Frogmore. 1% (1km²). Atlas 2000: [76], [86], [87], [88], [96], [97]

West Berks: Shrivenham [28], Watchfield [29], Kingston Lisle [38], Redhill Wood [4264] and Oaken Copse, Enborne [46], Foxcombe [40], Bucklebury Common [56], Yattendon [57], Streatley [58], Little Wittenham [59], Bagley Wood [50], Rush Court [69]. Atlas 2000: [28], [29], [38], [46], [40], [56], [57], [58], [59], [50], [66], [67], [69]

DROSERACEAE

Drosera rotundifolia L. *Round-leaved Sundew*

hr 6 ↓

Bogs and wet heathy ground on acid peats.

Ascot: "wherever there is an acid bog" in Druce's time; Sunningwell Bog, Swinley, Buttersteep, Whitmoor Bog. Englemere (1970), Tower Hill (1974), Kingsride (2004). Not in Silwood Park

East Berks: occasional in bogs on the acid sands, south of 70. Bulmarsh (1883), Wellington College. Common in all the bogs of the district. Bogs, wet heaths and old peat pits; locally frequent but decreasing. Triangle Pond, Finchampstead, Owlsmoor, Lower Star Post, Rapley's Farm, Long Moor (1983), Wishmoor Bottom (1983 and 2004), Road Research Lab Crowthorne (1983), Broadmoor Bottom and Owlsmoor (1984 and 2004), east of Caesars Camp (1987). Following birch, pine and rhododendron scrub clearance at Gormoor Valley [872658] in 2004. 2% (1km²). Atlas 2000: [76], [86], [96]

West Berks: rare in the Kennet valley, very rare on Frilford Heaths, extinct or absent elsewhere. Inkpen Common [36], Wickham [37], Cothill bog [49], Frilford Heath [49], in a bog in the Chilswell Hills [40], Snelsmore Common and Sole Common [47], Greenham Common [46], Crookham Common [56], Aldermaston [56], Bishops Green [56], Cold Ash Common [56], Fence Wood [57], Bagley Wood [50], Mortimer [66], Silchester [66]. Atlas 2000: [46], [49], [40], [57], [67]

Drosera intermedia Hayne *Oblong-leaved Sundew*

hr 6 ↓

Drosera longifolia auct., non L.

Bogs and wet heathy places. Locally common but with a much more restricted distribution than *D. rotundifolia*.

Ascot: recorded from Sunninghill (1966), but I have no further details. There is no suitable habitat nowadays.

East Berks: Bagshot, Windsor Great Park, Earley Heath, Bulmarsh Heath, Kingsmere, Crowthorne, Wellington College (1897), Sandhurst (1897), Riseley Common, South Park, Wildmoor Bottom, Broadmoor, Sandhurst. Bogs; rare and decreasing. Kings Mere (1950), Owlsmoor (1967), Englemere Pond (1970). Commonest on Chobham Common National Nature Reserve across the border in v.c.17 Surrey. Extinct at many of its former sites, but still at Owlsmoor [8562] in 2003. Atlas 2000: [86]

West Berks: thought to be extinct in all its former stations in the Kennet valley: Snelsmore Common [47], Greenham Common (RDG) [4864] in 1940, Cold Ash Common [56], Burghfield (RNG) [66] (all pre-1897); Padworth Common [66] in 1918. Refound in a valley bog on Silchester Common [6162] in 1983 but not seen since. Atlas 2000: no records

VIOLACEAE

Viola x scabra F. Braun = ***V. odorata*** x ***V. hirta***

West Berks: Basildon [67] in 1893 (OXF), Cumnor [40] in 1895 (OXF), Inkpen Hill [36] in 1933 (RNG), Sulham Wood [67] in 1936.

Viola x bavarica Schrank = ***V. riviniana*** x ***V. reichenbachiana***

West Berks: recorded by J.E. Lousley from Hampstead Norreys [5276] in 1937 (RNG).

Viola riviniana x ***lactea***

West Berks: field record by Bowen from Inkpen Common [383641] in 1983.

Viola canina L. *Heath Dog-violet*

hp 4 ↓

Viola canina subsp. ***canina***

A local speciality of sandy, heathy ground (avoiding the clay); very rare and spaced in the 4 corners of the county. Fens, damp grassland both acid and basic, and dry heaths. Known from *V. lactea* by clear blue (rather than cream to greyish violet) petals, leaves ovate (rather than lanceolate) with cordate or truncate (rather than rounded or cuneate) bases. Druce writes "although local in the north and the east of the county, this species is frequent in the Kennet and Loddon districts. It appears to be eminently an arenaceous [sand loving] species, and consequently avoids the Oxford and Kimmeridge Clay and the Gault formations. In the Wytham meadows it occurred on a stratum of gravel".

East Berks: heaths between Ascot and Bagshot, Bracknell, Park Place, Windsor Great Park, Loddon Bridge (OXF) in 1891, Stubbing's Heath, Wellington College, Finchampstead, Wokingham, Sandhurst, Cookham Dene, Swinley. Very local; near Wokingham (1965). Now gone from all of its East Berks locations. Atlas 2000: no records

West Berks: Inkpen Hill [36], Cothill and Frilford Heath golf course [49], Wytham Meads (OXF) [40] where it has long been extinct in what Druce called "an unexpected locality", Burghfield Common (RDG) [66] in 1917, Pangbourne Meads (LAN) [67] in 1963. Brimpton Common [5763] Silchester Common [6262]. Removal of the old runway at Greenham Common produced a perfect habitat on compacted open gravel; there were more than 300 plants in flower at the western end [4864] on 20 April 2002. About 20 plants in grass near the Laser Tunnel at AWRE Aldermaston [5963] in 2003. Atlas 2000: [36], [49]

Viola lactea Sm. *Pale Dog-violet*

hp 5 ↓

Open spots on lowland heaths, often amongst gorse, prospering after soil disturbance. A local speciality, but much reduced in abundance. Its distribution is centred on the New Forest and it is extinct at most of its Berkshire sites.

NVC: H 3

Ascot: first record "From a disused brickfield on a heath-covered waste, by the left side of the road from Bagshot to Ascot Station" (OXF) (Watson 1869); he must mean the Swinley site. Druce knew the plant from "one or two places on Bagshot Heath". I have never found it.

East Berks: near Loddon Bridge (1897). Bowen did not find the plant in any of Druce's locations in our area. Nor have I. We must sadly conclude that it is extinct in East Berkshire.

West Berks: still present on Inkpen Common in 4 heathy spots [3864], but probably gone from Thatcham (RDG) in 1936 and from Aldermaston [56], Mortimer Common (OXF) [66] and Three Firs on Burghfield Common (RNG) [6566] in 1926.

Viola palustris L. *Marsh Violet*

hr 4 ↓

Marshes, bogs, alder swamps, wet portions of heaths, preferring peaty soils; locally common, but very rare in the northern part of the county. Still declining in abundance as a result of drainage and habitat destruction.
NVC: M 24,27; S 1,3; W 4,5

East Berks: Druce considered the plant to be “common only on the acid sands along the southern boundary of the county”, from Virginia Water in the north-east to Long Moor bog in the south-west. Absent from all the ground north of 70. “An abundant plant on the Bagshot Sands in the Loddon district. Swampy gullies in alder woods”, Grebe Pond between Crowthorne and Wokingham (RNG), Virginia Water, Windsor Great Park, Long Moor bog, east of Ascot Station [9268], Wishmoor Bottom [8763], Wellington College (RNG). It is now very local and uncommon; one of the best surviving stations is on Wishmoor Bottom at the Royal Military Academy just north of the second bridge [877627]. Atlas 2000: [86], [97]

West Berks: except for outlying stations in the Northern Loop of the Thames at Cothill [49], Chilswell Copse and Hen Wood [40], the plant is confined to the Kennet valley from Inkpen and Kintbury [36], Snelsmore Common and Upper Ashpiece Woods [47], Greenham Common [46], Crookham Common, Wasing Place, Bishops Green and Aldermaston [56], Aldermaston Soke, Round Oak Woods and Ufton Nervet to Burghfield (LAN), Silchester and Mortimer Commons (RNG) [66]. Recently recorded from Tadley Common [6062] (RNG). Atlas 2000: [46], [47], [40], [56], [66]

Viola x contempta Jord. = **V. tricolor x V. arvensis**

Sandy arable ground on Burghfield Common [66], collected by J.E. Lousley in 1927 (RNG), and from a building site in Tilehurst [67] by Mrs E. Hodgson in 1960 (LAN).

SALICACEAE

Populus nigra L. *Black-poplar*

mm 4

Populus nigra subsp. **betulifolia** (Pursh) Dippel
Populus betulifolia Pursh

A charismatic native tree of riversides, fens and damp hedges, local and in small quantity; absent from the chalk and from east Berkshire. “In all our river valleys and a conspicuous feature in the scenery of the Thames Valley” (Druce) is perhaps an exaggeration. From a distance, it is told by its heavy, down-curving branches with upturned tips, broad rounded canopy and heavily burred trunk. Close up, the leaves are longer than they are broad, and have serrate margins with straight (not hooked) teeth. Host to several kinds of galls: midrib aphid *Pemphigus filaginis*, twisted petiole *P. spirothecae*, purse gall petiole *P. bursarius*, leaf *Eriophyes varius* and swollen glands *E. diversipunctatus*. The leaves are mined by *Stigmella trimaculella*, *Aulagromyza populi* and *Phyllocnistis suffusella*.

NVC: W 5

Ascot: no records

East Berks: very rare, and extinct at several of its former stations. Shinfield, Loddon Bridge, Easthampstead Park (RNG) in 1914. All but restricted to the Loddon valley, absent or extinct elsewhere. Atlas 2000: [77], [87]

West Berks: commonest in the Thames valley, rare in Kennet valley and absent elsewhere. By Acorn Bridge on the floodplain of the R. Cole [215881], Buscot [29], Stanford-in-the-Vale, Buckland and Pusey Common Wood [39], Bagnor [46], Steventon [49], south side of Greenham Common [505634], Thatcham [56], Frilsham [57], Blewbury (RNG), Streatley (RNG), South Moreton (OXF), Bradford’s Brook Wallingford and East Hagbourne [58], Appleford (OXF) [59], Sulham and Pangbourne [67], Rush Court [69]. Atlas 2000: all except [36], [47], [40], [50], [66]

Salix x rubens Schrank *Hybrid Crack-willow* = **S. alba x S. fragilis**

A wide range of phenotypes are planted in wet places and by streams and rivers. The plants with yellowish-orange twigs, that glow so conspicuously in winter sunshine, are nothovar. *basfordiana* (Scaling ex S.J.A. Salter) Meikle.

West Berks: Bablockhythe and Appleton [40], Radley pit [59] (OXF), Burghfield [67] (LAN det. R.D. Meikle)

Salix x pendulina Wender. *Weeping Crack-willow* = **S. fragilis x S. babylonica**

Salix x babylonica auct., non L.

Salix x blanda Andersson

East Berks: at Strand Mere [8580] in 1958 (det. at Kew).

Salix alba var. **vitellina** (L.) Stokes *Golden Willow*

mm 4

These willows are grown for the winter interest of their brightly coloured shoots. They are told from the coloured twig cultivars of *Cornus* at once by the buds: willows have alternate buds, and dogwoods have their buds in opposite pairs. Much used in landscaping schemes in towns and planted widely on motorways and dual carriageways.

The classic yellow-twigged willow is var *vitellina*; the shoots need to be cut down to a stump every year or two to ensure the best colour; var *britzensis* has bright orange red twigs and var. *chermesina* has carmine red twigs.

Salix x sepulcralis Simonk. *Weeping Willow* = **S. alba** var. **vitellina** x **S. babylonica**

Salix x babylonica auct., non L.

Salix x sepulcralis Simonkai nothovar. *chrysocoma* (Dode) Meikle

Salix x pendulina Wender. var. *elegantissima* (Koch) Meikle

Much confused in the past. A key to the 6 different Weeping Willows is on p.59 in Meikle (1984). The key features you need to note are these: whether the catkins are sessile or pedunculate, whether the leaves are finely or coarsely serrate, whether the twigs are golden and very pendulous or olive and not very pendulous, whether or not the ovary has short hairs at the base, and whether the ovary is subsessile or distinctly pedicellate. I hope you have got all that.

Silwood Park: a large planted tree at the entrance to Silwood Farm.

East Berks: Boulter's Lock, Maidenhead.

West Berks: at Tubney Pond [4398] in 1954 (det. R.D. Meikle)

Salix triandra L. *Almond Willow*

o m 3

Salix triandra L. var. *hoffmaniana* (Smith) H. Watson

By rivers, ditches, ponds and gravel pits in small quantity. Absent from the chalk and rare on acid soils. Locally common as a small tree or shrub. Known from *S. alba* and *S. fragilis* by stipules large and persistent to maturity and by smooth, flaking bark. The twigs are glabrous and have strong ridges or angles.

Ascot: no records

East Berks: Jouldern's Ford, Hurley, Bray, Bisham, Sonning, Twyford, Wargrave, Cookham, Ruscombe. All but confined to the Thames from Sonning to Remenham. Common at the Loddon Lily site [767837] close to the Upper Thames Boat Club at Remenham in 2002. Atlas 2000: [78]

West Berks: occasional along the Thames and Kennet valleys but absent from the interior. Lechlade [29], Milton Pond, Steventon, Cothill Fen and Dry Sandford Pit [49], Appleton [40], Aldermaston [56], Lowerhill Farm Wood, Radley and Sutton Courtenay [59], Kennington [50], Burghfield (LAN) and Theale [66], Pangbourne [67]. Atlas 2000: [29], [49], [40], [56], [59], [50], [66], [67]

Salix x mollissima Hoffm. ex Elwert *Sharp-stipuled Willow* = **S. triandra** x **S. viminalis**

West Berks: Wytham [40] in 1893 (OXF), Radley [59] in 1897 and Kennington [50] in 1892 (OXF).

Salix purpurea L. *Purple Willow*

m 3

Salix purpurea L. subsp. *lambertiana* (Smith) Macreight

Fens and by rivers, canals and ditches, ponds and gravel pits local and in small quantity. Absent from the chalk and rare on acid soils. NVC: W 1

East Berks: common by the Thames from Henley to Marlow. Windsor, Bray, Hurley, Cookham, Wargrave, Wokingham, Loddon Bridge, Barkham, etc. Cock Marsh (1982), planted at Whiteknights Park (1975). Now rare on the Thames and Loddon. Atlas 2000: [77], [78], [88]

West Berks: occasional in the Northern Loop and along the Kennet valley. Absent or rare elsewhere. By the R. Thames east of Lechlade [29], Newbury [46], Great Wood [5165], Sutton Courtenay Manor and Didcot [59], Theale (LAN) [67]. Atlas 2000: [29], [38], [39], [46], [49], [40], [56], [59], [50], [67], [68]

Salix x rubra Huds. *Green-leaved Willow* = **S. purpurea** x **S. viminalis**

This hybrid is usually planted, but it can occur spontaneously when the parents grow together. Sometimes indicates the presence of former osier beds, as it was once a popular willow with basket makers. Told from the parents by the green under-leaves (*S. viminalis* is sericeous beneath) and the pubescence of young stems and leaves (*S. purpurea* is glabrous). It has bright red anthers.

Silwood Park: local and rare in the swampy part of Farm Wood on the bend in Farm Road. First recorded on 10 March 1980 and still there (but struggling in dense shade) in 1999.

East Berks: on the south-east corner of Heath Lake [8265] and planted in Whiteknights Park [7371]

West Berks: Faringdon [29], Newbury [46], Farmoor [40], Tilehurst [67] in 1895 (**OXF**).

Salix x forbyana Sm. *Fine Osier* = **S. purpurea x S. viminalis x S. cinerea**

West Berks: Eynsham Lock [40] (**OXF**) (det. EFW), Wytham [40], North Farm [5892]

Salix daphnoides Vill. *European Violet-willow* • mm 2

Known by its dark purple stems with a plum-like bloom that is easily rubbed off, and by the leaves being relatively short (less than 5 times as long as wide). The branchlets are not pendant.

East Berks: planted at Dinton Pastures [77] and Broadmoor Bottom [86].

West Berks: Caldecott Road, Abingdon [4996] (**OXF**) (det. R.D. Meikle).

Salix x sericans Tausch ex A. Kern. *Broad-leaved Osier* = **S. caprea x S. viminalis**

Salix x laurina auct., non Smith

Salix x smithiana auct., non Willd.

East Berks: Coleman's Moor (**RNG**), Pinkneys Green (1984) (det. R.D. Meikle)

West Berks: on a clay bank in Gypsy Lane, Tilehurst pits [67] (**LAN**) and Dry Sandford Pit [49] (both det. R.D. Meikle), Tuckmill Meadow [2488], Wootton and Tubney Manor Farm [40], south of Theale [66].

Salix x calodendron Wimm. *Holme Willow* = **S. viminalis x S. caprea x S. cinerea**

Salix x dasyclados auct., non Wimmer

West Berks: North Farm, north of Brightwell-cum-Sotwell [59] in 1987

Salix x smithiana Willd. *Silky-leaved Osier* = **S. viminalis x S. cinerea**

West Berks: on the old railway at Didcot [59], by the old canal at Steventon [49], Didcot Power Station [59] and Dry Sandford Pit [49] in 1990 (det. R.D. Meikle).

Salix x fruticosa Doll *Shrubby Osier* = **S. aurita x S. viminalis**

West Berks: Abingdon [49] in 1918 (**OXF**) with earlier, unsupported records from Didcot and Radley [59] and Ruscombe [77].

Salix repens L. *Creeping Willow* n 4

Salix arenaria L.

Salix repens L. subsp. *argentea* (Smith) Camus and A. Camus

Damp heaths, forest rides and margins of acid ponds; local and decreasing on acid soils in south Berkshire. Absent from the chalk. NVC: M 16,24

Ascot: locally frequent in the fen-meadow north or the railway, west of St George's Lane 1970-2004. Also in damp rides in the Crown Estates woodlands. In Druce's time, the plant was found on moist heathy ground at Englemere Pond, Sunninghill, Ascot, South Ascot, Sunningdale, Red Lodge Swinley, Martins Heron. Still at Swinley, Whitmoor Bog, Kingsride, Buttersteep Hill and Englemere now, much reduced through habitats loss, mainly as a result of housing developments like Martins Heron.

East Berks: only in the south, on the Bagshot Sands. Bearwood, Bagshot Heath, Earley, Broadmoor, Riseley, Jouldern's Ford, Finchampstead, Sandhurst, Ambarrow, Haines Hill. Easthampstead Plain, Coleman's Moor, Owlsmoor, Dukeshill golf course [907650] etc. 2% (1km²). Atlas 2000: [76], [77], [86], [96], [97]

West Berks: restricted entirely to acid heaths on the southern slopes of the Kennet valley. Snelsmore Common [47], Bishops Green [56], Gibbet Piece, Padworth Common, Silchester Common, Ufton Park and Wokefield Park [66]. Atlas 2000: [46], [47], [49], [66]

BRASSICACEAE

Sisymbrium altissimum L. *Tall Rocket* • th 6 ↓

Dry waste ground and rubbish tips. Rare and casual, declining.

Silwood Park: very rare on bare waste ground behind M-Scan, on ground where a Portakabin had stood for many years, killing all the perennial vegetation. Five plants on 28 June 1998 during the first growing season after the cabin was taken away. Site destroyed by the construction of the new greenhouses in summer 2000. Whether the seed had lain dormant for years, or was carried into Silwood when the Portakabin was delivered, we shall never know.

East Berks: not found by Druce. Crowthorne (**RNG**) in 1917, Reading (1960). <1% (1km²). Atlas 2000: [77], [87], [96]

West Berks: Enborne in 1896 [46], Frilford Heath in 1964 (**OXF**) [49], Downe House in 1966 [57], Moulsoford in 1918 (**OXF**) [58], Radley and Didcot Station [59], Tidmarsh Mill in 1911 (**RDG**) [67]. Atlas 2000: [49], [57], [59]

Descurainia sophia (L.) Webb ex Prantl *Flixweed* ○ th 6 ↓
Sisymbrium sophia L.

Waysides, sandy fields, rubbish tips and bare waste ground; local, rare and sporadic. First recorded in Lyle's *Herball* (1660) "upon old walls about Oxford everywhere".

NVC: OV 3,17,19

East Berks: not found by Druce in our area. Maidenhead (1960), Cookham (1961), Reading (1918). On the earthen mound of the new flood defences in Stag Meadow at Windsor in 1997; not seen since, despite repeated visits. <1% (1km²). Atlas 2000: [77], [88], [97]

West Berks: recent records are virtually confined to the Northern Loop of the Thames: Cothill, Marcham, Frilford Heath and Fyfield [49], Wytham Mill, Botley, Dry Sandford and Tubney Manor Farm [40], Didcot [59] and Bagley Wood [50], with records of casual plants from Newbury Station [46] in 1897 and Thatcham [56] in 1918 to the south. Atlas 2000: [49], [40], [59]

Bunias orientalis L. *Warty-cabbage* ● h 5 ↓

Alien by the sides of roads and railways; rare. Sometimes established briefly in grassland and by roadsides, especially on calcareous soils. In Britain, it is best known as a rare but persistent alien in Cambridgeshire, where it grows on the Devil's Dyke on the edge of the fens. In recent years, this species has increased dramatically in abundance in Central Europe, so that it is now the commonest yellow crucifer by roadsides in many parts of Germany. It will be interesting to see whether it invades southern England in due course. It is an attractive plant with neatly triangular leaf segments.

East Berks: Maidenhead (1881), Wargrave (1893), Knowl Hill. Atlas 2000: no records

West Berks: Watchfield [29], Letcombe Bowers [38], AERE Harwell [48] in 1980, Garford and Grove [49], Botley [40], Moulsoford, Aston Tirrold and Lollingdon Hill [58], Didcot and Radley [59], Basildon and Tilehurst (**RNG**) [67]. The most recent sighting is from a lane-side north of Westmill Farm [235910]. Atlas 2000: [29], [48], [58], [59], [50]

Bunias erucago L. *Southern Warty-cabbage* ● th 5 ↓

Formerly an occasional casual, now rare or extinct. Very distinctive fruits with four wings.

West Berks: recorded by Druce from Didcot [59] in 1897 and Cothill [46] in 1918.

Malcolmia maritima (L.) W.T. Aiton *Virginia Stock* ● th 5
Wilckia maritima R. Br.
Cheiranthus maritimus L.

A rare alien outcast of gardens, uncommon on waste ground

Silwood Park: a single plant on the concrete steps of the Ecology Greenhouse by the Header House on 3 May 2002

East Berks: not found by Druce. Rubbish tips, rare and casual. Cookham (1958), Smallmead tip (1969). River bank by the M4/A33 Interchange [709702] in 1999. Locally frequent on a pavement in Earley [7571] in August 2002

West Berks: Newbury [46], Grandpont [50] and Pangbourne [67] pre-1897. Kennington [50] in 1929 as part of the Botanical Exchange Club, Didcot [59] in 1965. Susan Erskine found the plant at [299952] near a new roundabout where A420 meets A417 in 2003.

Matthiola longipetala (Vent.) DC *Night-scented Stock* ● th 5

Told from the other *Matthiola* spp. by its cylindrical (not compressed) fruits. A common garden plant, but seldom found as an escape.

East Berks: subsp. *bicornis* on waste ground in Bulmershe [7573] in June 2002.

Barbarea intermedia Boreau *Medium-flowered Winter-cress* • hs 5

Sown grassland, waste ground and rubbish tips; rare and sporadic. Told from *B. vulgaris* by its pinnate (not entire) upper stem leaves.

East Berks: no records in Druce. Jouldern's Ford (1966), Sonning (1958), railway by Wellington College (1962). 2% (1km²). Atlas 2000: [76], [86], [87], [88]

West Berks: first records from Challow (**OXF**) [38] in 1890, a clover field near Newbury [46] in 1892, Wickham (**BM**) [37] in 1919, near Bucklebury [57] pre-1897, Wash Common (**BM**) [46] in 1939, Theale tip (**LAN**) [67] in 1961. More recent records come from the railway at Newbury [4866] in 1972 and Benham Lock [4267] in 1978, and from a hedgerow near Newbury [4766] in 1980. Atlas 2000: [37], [46], [56], [67]

Barbarea verna (Mill.) Asch. *American Winter-cress* • hs 4
Erysimum vernum Miller
Barbarea praecox

A rare alien of waste ground and railways. Told from *B. intermedia* by its bigger fruits (more than 4cm) and longer petals (more than 5.6mm).

Silwood Park: local and rare on an abandoned student allotment in Silwood Bottom in April 2001; perhaps introduced as a vegetable crop. Gone by 2002.

East Berks: waste ground, rare and casual. Wargrave in 2 places, Reading, Sonning, Wellington College Station (**RNG**) in 1915, the railway at Twyford and Maidenhead (1897). Leighton Park. Broadmoor (**LAN**) in 1961. <1% (1km²). Atlas 2000: [77], [87]

West Berks: first recorded from Newbury (**BM**) [46] in 1897, by the railway at Uffington [38], Denchworth [39], Speen [46], commonly naturalised at Newbury Station [4766], Upper Seeds at Wytham [40], Radley College and Didcot [59], waste ground at Grandpont [50], Theale [67]. Atlas 2000: [29], [40], [59], [66], [67]

Rorippa x sterilis Airy Shaw *Hybrid Water-cress* = **R. nasturtium-aquaticum x R. microphylla**
Nasturtium x sterile (Airy Shaw) Oefel.

East Berks: in Whiteknights Park Lake [77] in 1966.

West Berks: ditch near Kingston Lisle [38] in 1966, and from Dry Sandford Pit [467996] in 1990.

Rorippa islandica (Oeder ex Gunnerus) Borbás *Northern Yellow-cress* th 6
Sisymbrium islandicum Oeder ex Gunnerus
Rorippa palustris auct., non (L.) Besser

Margins of rivers and streams; local, mostly in the Thames Valley. There may have been some confusion in the historic records in this section of the genus (there are no herbarium specimens). The fruit is several times as long as the pedicel (2-3 times), but much shorter (0.8-2 times) in *R. palustris* (which is the common yellow-cress of gardens and damp, compacted waste ground in towns). NVC: OV 20,32,35; S 10,23

East Berks: formerly occasional in the Thames Valley, and rare in the vicinity of Reading, but absent from large areas. Atlas 2000: no records

West Berks: occasional all along the Thames, rarer in the Kennet: Hungerford [36] in 1975, Turner's Green and Brimpton pit [56] in 1986-7, east of Aldermaston [66] in 1982. Atlas 2000: no records

Rorippa x erythrocaulis Borbás *Thames Yellow-cress* = **R. palustris x R. amphibia**

East Berks: by the Black Water River at Finchampstead [7962] in 1921 (**BM**) and from Reading [77] in 1990 (**LAN**).

Rorippa x anceps (Wahlenb.) Reichenb. = **R. amphibia x R. sylvestris**

It has petals much longer than the sepals (so not *R. palustris*), pinnate leaves (so not *R. amphibia*), non-clasping leaf bases, and a relatively long terminal leaf lobe (so not *R. sylvestris*). The slender fruits stand out at almost 90 degrees to the stem (patent) and are shorter (4mm) than the pedicels (7mm).

East Berks: a large plant on the verge of the roundabout at Braywoodside [8775] in July 2003 growing near *R. sylvestris*.

West Berks: in a water meadow near Streatley [596810] in 1963 (**RNG**). Near the Thames in the Goring Gap [599797] in 1999.

Cardamine bulbifera (L.) Crantz *Coralroot* • g 4 †

Dentaria bulbifera L.

Although it has no claim to be a native Berks plant, it does have a remarkable native distribution in Britain with two centres: one on the Buckinghamshire Chilterns and another on the Weald (see Showler and Rich, 1993, *Watsonia* 19, 231-45). The Scarce Plant Atlas shows records in [88] and [98], but these refer to the Buckinghamshire parts of these squares in Marlow Woods and Burnham Beeches respectively. Coralroot is found in beech woods on dry slopes over chalk, often close to tracks, growing in patches 1-2m in diameter in areas free of other vegetation, but often close to *Rubus fruticosus* and *Mercurialis perennis*. Plants have axillary bulbils which are the common means of reproduction, seed seldom being set. It is not at all clear why the plant does not occur as a native on our chalk beechwoods, just a stone's throw south across the river.

East Berks: not recorded by Druce. Bowen has it as a doubtful native or extinct. Recorded from Bisham Wood in 1879 without a specimen (possibly planted), and still there in 1944 "visible from the road (A308) on the left at the top of Bisham Hill" (A.J.M. Bailey, 1968). This site is presumably in Park Wood [851840]. Naturalised in Savill Gardens just over the Surrey boundary by Virginia Water in Windsor Great Park. More recent records as garden escapes or deliberate introductions. Found in a lawn at 1 Walnut Tree Close in Ruscombe [795767] in 1995 where it was introduced with imported turf. A good candidate for introduction to the magnificent woods owned by the Woodlands Trust at Bisham.

West Berks: a damp river bank in Newbury in 1966 (**RNG**, but note that the grid reference is wrong; the figure given is in Whiteknights Park).

Cardamine x fringsii F. Wirtg. = **C. pratensis x C. flexuosa**

East Berks: collected from a meadow near Ascot Station by A.J. Wilmott (**BM**) 12 July 1932 (probably Sunningwell Bog [926683]), then again by J.E. Lousley on 8 July 1933 (**RNG**). Lousley was such a fanatical collector that he could not stand to have any one possess a British specimen that he did not have in his collection.

Cardamine x zahlbruckneriana O.E. Schulz = **C. flexuosa x C. hirsuta**

West Berks: collected by Druce from Bradfield [67] pre-1897.

Arabis glabra (L.) Bernh. *Tower Mustard*
Arabis perfoliata, Turritis glabra L.

h 5 ↓

A very rare native of hedge-banks and sandy waysides in sunny situations. Petals pale yellow, seeds in 2 rows.

East Berks: Maidenhead, extremely plentiful at the top of Cookham Down in Druce's time, lane between Loddon Bridge and Twyford. Sandford Lane (**RNG**) [7672] in 1962, between Cookham and Bourne End [8885] in 1958, Maidenhead [8580] in 1897, Woodley (**LAN**) [7773] in 1957, and Coleman's Moor in 1921, 1931 and 1949 (all in **RNG**) [7672] now swallowed up by the suburban sprawl of south-eastern Reading, but still providing one recent record from a dry bank [776727] in 1984. Atlas 2000: only in [77]

West Berks: near Hermitage and Frilsham [57] in 1942, Bradfield [67] in 1918. Atlas 2000: no records

Arabis hirsuta (L.) Scop. *Hairy Rock-cress*
Turritis hirsuta L.
Arabis brownii Jordan

hs 6 †

Walls, dry banks, bare places in chalk grassland, etc.; never more than local and rare, now extinct. It declined with the increasing use of fertiliser on grassland. Petals white, seeds in 1 row.

East Berks: Sonning railway cutting (1897), Reading (undated), Frogmore gardens (1952). Atlas 2000: no records

West Berks: Walbury Camp [36] in 1955, Hamstead Marshall [46] in 1955, Snelsmore Common [47], East Ilsley [48], Compton [57] in 1918, Streatley Downs [58], Purley [67] in 1962. Not recorded from the Coralline Oolite in Berkshire (cf. Oxfordshire where there are 35 recent records). Atlas 2000: no records

Alyssum alyssoides (L.) L. *Small Alison*
Clypeola alyssoides L.

● th 5 †

An extinct local speciality of cornfields and waste places. Like so many small plants, it proved incapable of survival in a world polluted by agricultural fertilisers. A rare annual of grassy fields and arable land that was recorded widely in Britain before 1930, mostly as a casual alien. It persists from year to year in the Breckland of Suffolk and Sandlings of Norfolk. It was included in the first and second editions of the *Red Data Book* (1977 and 1983), but was excluded from the third edition (Wiggington, 1999) on the grounds that it was not native.

East Berks: rather plentiful in some cornfields between Culham Court and Great Marlow in 1891, and in a field near Maidenhead. Arable fields, Hurley (**OXF**) [88] in 1893, Reading and Sonning [77] in 1918, now extinct.

West Berks: on the Ridgeway at Letcombe (**OXF**) [38] in 1882, Abingdon [49], and Bessels Leigh (**OXF**) [40] in 1920. Now extinct.

Berteroa incana (L.) DC. *Hoary Alison*
Alyssum incanum L.

• th 6 †

Waste places, rare and impermanent by railways. Presumed extinct.

East Berks: first record in a field by Wellington College (1874), by the railway at Maidenhead (1897), Sonning Cutting (1899). Pronounced extinct by Bowen.

West Berks: plentiful about Didcot Station (**OXF**) [59] in 1891, Sheepstead House (**OXF**) [49] in 1895, and on rubbish heaps at Grandpont [50] in 1891. By the railway at Newbury [46] in 1897. Atlas 2000: no records

Draba muralis L. *Wall Whitlowgrass*

• th 4

Dry sandy banks in north-west Berkshire, very local. A very rare casual elsewhere.

Silwood Park: a brief but spectacular outbreak on open ground on the cinder pot-standing at the Greenhouses. Several hundred plants appeared in fruit on 13 May 2000, but none at all were seen in May 2001 or 2002. Origin unknown, but people from Silwood did visit Phil Grime's field site in the Derbyshire Dales in 1998, and may have picked up seeds there. Rediscovered on 5 May 2003 after the pot-standing had been treated with glyphosate herbicide in summer 2002; there were about 50 plants in an area of c. 1 m² on the left of the central path, 7m from the door in the garden wall, growing amongst, and almost concealed by, a dense crop of *Valerianella locusta* which had also benefited greatly from the herbicide treatment. Not seen in 2004.

East Berks: no other records. Not in Druce or Bowen.

West Berks: Buckland [39], Wytham (**OXF**) [40] in 1910, Boars Hill (**RNG**) [4803] in 1953, Youlbury [480026] from 1949 to 1999. Atlas 2000: [40]

Erophila majuscula Jord. *Hairy Whitlowgrass*
Erophila simplex Winge

th 3

Scattered sparsely throughout England, especially on calcareous soils: limestone rocks and thin limestone turf, chalk downland (where it may grow on ant hills), sandy ground inland, walls, railway lines and gravel paths. Leaves and lower stems densely grey pubescent. There are hairs on the flowering stem and on the lowest pedicel (pedicels hairless in *E. verna*). Petals bifid to less than half way to base. Petioles 20-50% of leaf lamina length (see below). The seeds are tiny (0.3-0.5mm dia.). Its distribution within Berkshire is not yet worked out in detail.

Ascot: searched for without success. Not in Silwood Park.

East Berks: Reading [77]; no further details

West Berks: Druce knew the plant from sandy arable fields at Inkpen [36] and near Lechlade [29] before 1897. Unlocalized post-1897 records from [49], [58], [50]

Erophila glabrescens Jord. *Glabrous Whitlowgrass*
Erophila quadriplex Winge
Erophila verna (L.) DC. var. *glabrescens* (Jordan) Diklic

th 3

Petioles 1.5 to 2.5 times the length of the laminae, subglabrous but with hairy edges, petals bifid to no more than half way to base. The upper stem and pedicels are completely hairless. Much less common than *E. verna*, but in similar habitats; worth looking for in early April.

West Berks: on chalky spoil on a construction site north of the former railway station at Compton [523800] on 24 April 2004. This is the first record for v.c.22.

Teesdalia nudicaulis (L.) W.T. Aiton *Shepherd's Cress*
Iberis nudicaulis L.

th 4 ↓

Bare spots and dry sandy banks on heaths, wall tops, and open patches on sand or gravel, on grass heaths and disused railways, in ground disturbed by rabbits or natural erosion. Found with *Ornithopus perpusillus*, *Aira caryophyllea*, etc. Often overlooked in flower in spring, it is more conspicuous in fruit. Declines under scrub encroachment and cessation of grazing.

NVC: U 1

East Berks: John Ray recorded it from Coleman's Moor in 1680, but it was local and rather rare even in Druce's time: "Ambarrow, Longdown Lodge Brickfield, Wokingham, abundant on a common near Bracknell, Sandhurst, near the railway from Bracknell to Wokingham, by the lodge near Wellington College Station". Eversley Common (**BM**) in 1890. Near Bagshot in 1897. By Bowen's time it was "Decreasing and very local. Dry banks on acid soil in south-east Berkshire. By the railway at Sandhurst (**RNG**) in 1947, and between Wokingham and Bracknell in 1965". Not seen recently, and presumed extinct in East Berkshire.

West Berks: a local speciality of open, sandy ground. Pickets Heath, Youlbury [486031], about 300 plants in a fallow in 1981, Frilford Heath golf course (10 plants in 1981 and 1996, 8 in 2004) and Tubney [49], Great Oakley, Chawley Hurst and Boar's Hill [40], Burghfield Common (**RDG**) [66] in 1913. In Dry Sandford pit in 1980 and Hitchcose pit in 1981 [49]. Camilla Lambrick reported "many hundreds" of plants near Chilswell Priory [486031] in 2004. Perhaps the easiest place to see the plant these days is on the wall at English Nature's headquarters at Foxhold on the southern edge of Crookham Common [5163]. Atlas 2000: [49], [40], [56], [57]

Thlaspi alliaceum L. *Garlic Penny-cress*

• th

A rare alien, smelling of garlic when crushed, told from *T. perfoliatum* by the presence of stem hairs and acute (not rounded) auricles on the stem leaves.

East Berks: on arable ground south of Ludgrove School Wokingham [8068] in 1978, and on dumped soil marking the boundary of a new car park, just west of Sandford Mill [778730] in 1989 (**RNG**). <1% (1km²). Atlas 2000: [77]

Thlaspi perfoliatum L. *Perfoliate Penny-cress*

th 4 †

Microthlaspi perfoliatum (L.) F.K. Meyer

A British native *Red Data Book* species of bare stony ground on calcareous substrates like limestone quarries and railway banks, probably never more than a casual in Berkshire and long extinct. Told from *T. arvense* by its smaller fruits (< 10mm) with their narrower wings (< 1mm at the midpoint) and from *T. alliaceum* by the lack of garlic smell when crushed. Grows with *Erophila verna* and, like it, requires constant disturbance to persist in the face of competition from perennial plants. It increased dramatically in its native sites in Gloucestershire and Oxfordshire following the great drought of 1995 (Wiggington, 1999).

West Berks: collected by H. Boswell on Cumnor Hill [4500] in 1861 and by Rev W.O. Wait at Denchworth [3590] in 1896 (**OXF**).

Iberis amara L. *Wild Candytuft*

th 7 ↓

A scarce annual plant of bare ground in chalk grassland (e.g. rabbit scrapes), especially on south- and south-west facing slopes, chalk pits and canopy gaps in storm-damaged woodland. An early successional species, rapidly replaced by more vigorous species in the absence of repeated disturbance, but possessing a long-lived seed bank. Suffered under the conversion of downland to arable farming under the CAP and from scrub encroachment following myxomatosis. Very rare as a garden escape (the common garden escape is the perennial *I. sempervirens*). A local speciality, told from *I. umbellata* by its smaller fruits (3-6mm rather than 7-10mm) and its inflorescence which is elongated (not corymbose) in fruit. NVC: CG 2

East Berks: chalky fields, locally common in Druce's time "near Henley, Hurley, and about Marlow, chalk pit between Henley and Wargrave, frequent near Park Place, fields near Culham almost white with blossoms". Bowen knew it only from arable fields and disturbed chalk grassland at Hurley [818822] in 1961. Careful management has allowed it to prosper in Hurley chalk pit, where it was frequent on the floor of the quarry in June 2002. <1% (1km²). Atlas 2000: [88]

West Berks: on chalk downs. Knighton Down and Compton Beauchamp [28], Whitehorse Hill [38], East Ilsley Down [48], Upper Basildon [5976], Lowbury Hill, Moulsoford, Fair Mile (**RNG**), Aston Upthorpe Downs, Streatley (**LAN**) and Cholsey (**BM**) [all 58], Hinksey [50], Pangbourne chalky railway cutting (**RNG** and **HULL**) in 1872 [67]. The most recent sighting was on Aston Upthorpe Downs [545839] in June 2000, but other spots worth searching are near Streatley [5880] and Blewbury [534820] and [534825] where the plant was last seen in 1971. Atlas 2000: [28], [38], [48], [58], [68]

Lepidium heterophyllum Benth. *Smith's Pepperwort*

h 5

Lepidium smithii Hook.

Hedge-banks, commons, roadsides, railway embankments, waste ground; local and rare. It shares its very distinctive stem leaves (entire, with acute clasping auricles) with *L. campestre*, from which it is told by its long style (exceeding the apical notch of the fruit), and by the absence of scale-like vesicles on the fruit.

Ascot: known from dry banks in Sunningdale and Sunninghill in Druce's time, but not seen there since the nineteenth century. The nearest extant site is on the clay at Chawridge Bank reserve (below).

East Berks: local and rare; Sonning Cutting, Burghfield Meadows, Cookham, just off the path to Foliejon Park at the top of the slope leading down to Chawridge Bank nature reserve [893740], Woodley, the railway bank at Queens Mere. 1% (1km²). Atlas 2000: [76], [77], [87]

West Berks: absent from the chalk, and from the Thames Valley. Denchworth [39], Greenham Common [46], Grove [49], Bucklebury [56], Aldermaston, Theale and Burghfield [66], Bradfield [67]. Atlas 2000: [38], [46], [49], [66]

Lepidium virginicum L. *Least Pepperwort*

● th 5 †

Lepidium densiflorum Schrader

Lepidium neglectum Thell.

An infrequent casual of wool and bird-seed introduced from North America, long extinct. Known by its small (2.3-4mm wide) but not tiny fruits (*L. ruderale* has smaller fruits 1.5-2.7mm), and by its relatively deep apical notch (more than 2mm deep, about one tenth of the length of the fruit).

Ascot: collected by Druce at Ascot [96] in 1929 and reported in the notes of the Botanical Exchange Club.

East Berks: no other records

West Berks: Druce collected plants at Moulsoford [58] and Didcot [59] in 1928 (OXF).

Lepidium ruderale L. *Narrow-leaved Pepperwort*

○ th 5 ↓

Waste ground, gardens, cinder beds, bare soil, rubbish tips and walls. Local and sporadic. Known at once by its tiny fruits (1.4-2.3mm wide) and by its entire (not dentate), non-clasping stem leaves with their rounded (not acute) tips.

East Berks: Prospect Park Reading (RDG) in 1912, Woodley in 1960, Emmbrook in 1965, Smallmead in 1965, Windsor in 1918. By the bridge where the Ascot Road crosses the M4 [894787] to the north of Holyport in June 2002. By the end of the Drift Road near The Squirrels [9373] in July 2002. 1% (1km²). Atlas 2000: [76], [86], [77], [87]

West Berks: scattered, but absent from the north and west; Hungerford (OXF) [36], Shefford (OXF) [37], Newbury (OXF) [46], Abingdon (OXF) [49], Aldermaston (RDG) [56], Frilsham [57], Didcot [59], Pingewood pits [690693] in 1986, Tilehurst (LAN) in 1956 [67]. Atlas 2000: [67]

Lepidium latifolium L. *Dittander*

● h 6

A statuesque plant (to 1.5m) of damp waste ground. It has undivided leaves, sessile above and long petiolate below. Druce doubted that the plant would be found this far inland, and it was not recorded by Bowen. A recent arrival in Berkshire.

East Berks: the first twentieth century record was from the water treatment works at Fobney [7071] in 1982, then 10 plants were found nearby, in a lane side at Reading old tip [712710] in 1986 (this site was destroyed by the construction of the new main road at Rose Kiln Lane). There were 3 small colonies at Smallmead tip [705707] in 1988. The plant has survived the massive upheaval of all the recent site clearance work (development of the Majewski stadium, road construction, and the building of the new water treatment works) and still grows in the ditch by the bridge into the new Reading Sewage Works [707707] off Island Road; 16 September 2001. A strong population, 10m in length, on the edge of the drive into Bray Cricket Club [899797] in June 2002-04. <1% (1km²). Atlas 2000: [77], [78], [87]

West Berks: in old peat pits at Newbury [46] in 1809, but long extinct at that site. A single recent record from the Thames riverbank north of Sandford Lock, Kennington [531017] in 1991. Atlas 2000: [50]

Diplotaxis tenuifolia (L.) DC. *Perennial Wall-rocket*

○ h 5

Sisymbrium tenuifolium L.

Old walls, very local. Distinguished by the possession of a distinct stalk (0.5-6.5mm) between the top of the pedicel and the bottom of the valves of the fruit. The flowers are bright, chrome-yellow.

NVC: OV 19

Ascot: no records. Not in Silwood Park.

East Berks: first recorded from the walls of Windsor Castle in 1770. Walls of Reading Abbey (1843). Atlas 2000: recent records from Reading [77] in 1994 and Windsor [97] in 1998. <1% (1km²). Atlas 2000: [77], [97]

West Berks: not in Druce or Bowen. Local and rare. Recent records of single plants from waste ground in Grandpont [5104] and an allotment in Botley [4906] in September 2002. Susan Erskine found the plant by a new roundabout of A420 and A417 [299952] in 2003. Atlas 2000: no records.

Brassica napus subsp. **rapifera** Metzg. *Swede*

● th 4

Brassica napus L. subsp. **napobrassica** (L.) O. Schwarz

Uncommon as a crop these days, and not seen recently. Neither Druce nor Bowen bothered to record the subspecies or varieties. This is a rape with its root swollen into a yellow-fleshed tuber. You have probably been bored by the argument about whether the

proper name for the vegetable is “turnip” or “swede”. The real answer is “it depends upon whether you are eating Turnip or Swede”! They are not synonyms. Swedes originated from Sweden in about 1775 (hence the name) and are traditionally eaten in midwinter in Scotland as an accompaniment to haggis when (even more confusingly) they are called “neeps”. Turnips are round and white- (not yellow-) fleshed, with a more watery consistency. Swedes and Turnips are critically distinguished only on the morphology of the inflorescence (see below).

Ascot: a rare casual in the verge of St George’s Lane in May 1982.

Brassica rapa subsp. **rapa** *Turnip*

• th 5

A frequent escape from cultivation in Druce’s time, but now uncommon. Formerly grown as a fodder crop, and found on lane sides and in ditches where turnips had fallen off farm trailers in transit. Vincent (1906) recounts the story of a Scots ‘shooting type’ going after partridge referring disparagingly to the paltry size of the turnips in fields near Long Wittenham: “he had never been asked to shoot in a field of radishes before”.

East Berks: rare in the arable districts. Jealott’s Hill, White Waltham, Fifield.

West Berks: on the northern verge of the M4 Motorway east of Chieveley on 6 May 2001. On a pavement in central Abingdon [4997] in July 2002.

Brassica rapa subsp. **oleifera** (DC.) Metzg. *Turnip-rape*

• th 5

Brassica rapa L. var. *oleifera* DC.

This is a rare bird-seed alien with us; it is sometimes grown as an oilseed crop, but much less frequently than *B. napus* subsp. *oleifera*.

West Berks: on the tip at Grandpont [40].

The following Chinese leaves are becoming popular as garden crops and are found occasionally on tips and waste ground: *Brassica rapa* subsp. *pekinensis* (Lour.) *Celery Cabbage* or *Pe Tsai*, *Brassica rapa* subsp. *chinensis* *Pak Choi*, and *Brassica rapa* subsp. *nipposinica* var. *laciniata* *Mizuna*.

Brassica juncea (L.) Czern. *Chinese Mustard*

• th 6 ↓

Sinapis juncea L.

Told from Turnip and Rape by the fact that the stem leaves do *not* clasp the stem. Told from *B. carinata* by the long beak (5-9mm rather than 2.5-6mm) on the fruit, and the lower leaves with 1-3 lobes (not 0-1).

Silwood Park: very rare casual. An enormous plant of unknown origin, growing in the competition-free and herbivore-free conditions afforded by the 1998-cultivated, fenced (but not methyl bromide treated) plot at Oak Mead on 12 September 1998, in company with *Sisymbrium officinale*. Not seen since.

East Berks: not in Druce. A rare casual on rubbish tips. Reading tip (1953), Loddon Mill (**OXF**) in 1954. <1% (1km²). Atlas 2000: [77], [96]

West Berks: Bradfield (**RNG**) [57] in 1988, Didcot (**OXF**) [59] in 1927, Kennington (**OXF**) [50] in 1963. Atlas 2000: [67]

Brassica elongata Ehrh. *Long-stalked Rape*

• hs 6 ↓

Roadsides and waste ground; very local and rare. A conspicuous, bright green species, with large unlobed basal leaves (22cm x 9cm in our plant) with large marginal teeth (7mm x 6mm), and entire lanceolate upper leaves (14.5cm x 2.5cm). The fruits are borne on a stipe separating the valves from the pedicel (only *Diplotaxis tenuifolia* is similar in this respect).

Ascot: very rare. In the verge opposite the Nursery Entrance to the Civil Service College by Sunningdale cemetery. One plant survived cutting in 1999 and 2000 to flower and set seed in July 2001.

East Berks: no other records

West Berks: Wytham Mill [40] and Didcot [59] in 1893 and 1892 (**OXF**).

Sinapis alba L. *White Mustard*

○ th 6 ↓

Brassica hirta Moench

Brassica alba (L.) Rabenh.

Sinapis alba subsp. **alba**

Cultivated fields, in Druce’s time “sometimes very abundant on the chalk where it replaces *S. arvensis*”. Formerly much planted as an agricultural crop. Much less common nowadays, and seldom used these days as a break crop or a green manure for ploughing in.

This is the mustard of “Mustard and Cress” (the cress is *Lepidium sativum*). Naturalised or casual on waste ground, roadsides and tips, especially on calcareous soils. On the margins of chalky arable fields. Very local, but often abundant where it occurs.

Ascot: no records. Not in Silwood Park.

East Berks: rare, and restricted to chalk soils in the north. Very abundant in several fallow set-aside fields north of Sutton Court Farm [837667] in June 2003. <1% (1km²). Atlas 2000: [77], [87], [97]

West Berks: common in the margins of arable fields on the chalk, between Ashbury [28] and Streatley [58], but scattered throughout. Buscot [29], Drayton and Courtfield House [49], Wasing pits [56], Pingewood pits [66]. Atlas 2000: all except [68], [69]

Sinapis alba subsp. **dissecta** (Lag.) Bonnier

A rare casual of waste ground. No recent records. Told by its 2-pinnate leaves with the terminal lobe not much longer than the adjacent laterals, and glabrous (not hispid) fruits.

Eruca vesicaria subsp. **sativa** (Mill.) Thell. *Garden Rocket*
Eruca sativa Mill.

• th 5

A rare casual of gardens and rubbish tips. An increasingly common salad vegetable amongst the trendy middle classes; likely to become more common as a garden escape.

Silwood Park: rare casual, 3 plants on outcast soil by the Header House, 17 May 1993. Possibly introduced from Israel by Bill Kunin. Not seen since. Frequently grown on the student’s allotments in Silwood Bottom; there were occasional stragglers in June 2003.

East Berks: Reading in 1897. Atlas 2000: [96]

West Berks: Newbury Station [46] in 1896, and Cholsey [58], Didcot [59]. Calcot Row [67] in 1960. Atlas 2000: [67]

Erucastrum gallicum (Willd.) O.E. Schulz *Hairy Rocket*
Sisymbrium gallicum Willd.
Brassica ochroleuca Beck

• th 5 †

Waste ground, a rare casual. Not seen recently.
NVC: OV 7

West Berks: on waste ground at Grandpont [50], Farmoor reservoir [40] in 1964, and by the railway at Didcot [59] in 1897.

Coincya monensis subsp. **cheiranthos** (Vill.) Aedo, Leadlay & Muñoz Garm. *Wallflower Cabbage*
Rhynchosinapis cheiranthos (Vill.) Dandy

• th 5

A rare casual of sandy ground and waste places.

West Berks: known to Druce from the railway at Didcot Station from before 1897. One hundred years later, the same population of plants was known to Richard Palmer from brickwork and embankments near the coaling stage at the Great Western Centre at Didcot Station [5290] from 1986-2001. It had thrived on neglect, neither spreading nor going extinct, but it has suffered recently from over-zealous tidying-up operations. Atlas 2000: [59]

Rapistrum rugosum (L.) Bergeret *Bastard Cabbage*
Myagrum rugosum L.

• th 5 ↓

Rapistrum rugosum subsp. **linnaeanum** (Coss.) Rouy and Foucaud
Rapistrum rugosum (L.) J. Bergeret var. linnaeanum Cosson

A rare casual of waste ground, roadsides, sewage works and arable land. It appears to be declining in distribution and abundance in Berkshire, in contrast to the trend exhibited in other parts of southern England (Stace records the plant as frequent and increasing, invasive of open grassland), and also contrary to the prediction made by Bowen (see below).

Silwood Park: rare casual. Six plants on the soil heap resulting from excavation of the foundations of the wind tunnel, 16 August 1985. Never seen again.

East Berks: not in Druce. Arable fields, allotments and rubbish tips. Local, but increasing according to Bowen. Reading tip (LAN) in 1960, Finchampstead, Maidenhead (1952), Barkham Ride (1963), Woodley tip (1975). Locally frequent at Maidenhead sewage works [8980] in September 2001. <1% (1km²). Atlas 2000: [77], [96]

West Berks: Cothill (OXF) [4699] in 1908, Lower Whitley Farm [40] in 1964, Abingdon (OXF) in 1918 and allotments [4997] in 1963. Theale [67] in 1959. Riddle Hill (OXF) [5484] in 1978. Locally frequent on the margins of chalky arable fields between Blewbury and Aston Upthorpe [547860] in June 2002, and on waste ground in urban Faringdon [2895] in July 2002.

ERICACEAE

Rhododendron luteum Sweet *Yellow Azalea*

• m 4

Plantations on acid soil; very local but established and increasing according to Bowen (I do not see much evidence of this). The flowers are delightfully fragrant.

Silwood Park: very commonly planted in the woodlands around the Manor House. Self-sown at a single site (5 plants in the beech clearing on the Cannon Path from 1998-2004), and absent from all of the naturally regenerated woodlands. On the Crown Estates side of Cheapside Road opposite Pound Hill Field in May 2002.

Ascot: two self-sown plants at Englemere next to the *Pyrola* patch opposite Whitmore Bog Cottages (1985-2004), also at Coronation Road, Kings Beeches. Very commonly naturalised in the Crown Estate woodlands at Buttersteep in 2002.

East Berks: not in Druce. Heath Lake (1961), Arborfield Grange (1965), Whiteknights wilderness (1965), Bearwood (1966), Wellington College (1963), Rapley Lake [9064] and [8964] (1966-99), St Leonard's (1969), Dukes Hill golf course (1986). Recently at Bearwood College and in other woodlands west of Wokingham, Longmoor, Wellington College, North Crowthorne, Park Wood, Windsor Great Park, Frogmore. 2% (1km²). Atlas 2000: all except [78], [87]

West Berks: just one record from Bagley Wood [50]. Atlas 2000: [50]

Kalmia polifolia Wangenh. *Bog-laurel*

• m 4

East Berks: not in Druce or Bowen. In 3 sites in and around Dukeshill golf course (1984-86) [900640], [902652] and [912652]. Outside our area, but close by, in a wet bog on Chobham Common (96D2, Lousley, 1976); in a "dangerous bog" away from tracks and screened by willows and birches (1910). Probably escaped by bird dispersal from one of the many nurseries on the A30 nearby.

West Berks: no records.

[Kalmia angustifolia L. *Sheep-laurel*]

• m 4

Not in Druce or Bowen. Outside our area, but close by, at the end of Sunningdale golf course [9462], in a neo-bog (Lousley 1976) with *Calluna* and *Erica tetralix*. Perhaps bird dispersed from nearby nurseries. Found in 1968 and originally confused with the 1910 record of *K. polifolia*, but they are some distance apart. Told by its longer petioles (4-8mm compared with 0-3mm in *K. polifolia*).

West Berks: no records

Daboecia cantabrica (Huds.) K. Koch *St Dabeoc's Heath*
Vaccinium cantabricum Hudson

• chw 7

Told from *Erica* by its much bigger individual flowers and by its alternate (not whorled) leaves.

Silwood Park: occasional in heathy grass on the western side of the Cannon Path leading to the Sundial. These plants have persisted in heavily rabbit-grazed turf since 1979, but it is not clear if they are self-sown here, or survivors of a planted heather bed that has subsequently disappeared.

Ascot: very local and rare. Long established with *Erica vagans* on a grave in Sunningdale churchyard (1979-2004).

East Berks: no other records

West Berks: Hen Wood [40] in 1920, Bagley Wood (RNG) [50] in 1951, Jarn Mound [40] in 1961, Youlbury [40] in 1964

Gaultheria mucronata (L.f.) Hook. & Arn. *Prickly Heath*

• n 5

Arbutus mucronata L.f.

Pernettya mucronata (L.f.) Gaudich. ex Sprengel

Woodland on acid soil; usually planted or outcast, occasionally self-sown, sometimes locally dominant.

Ascot: not in Druce. Tower Hill (1966), Silwood Park (1980), common on woodland rides at Buttersteep in 2002.

East Berks: St Sebastian's churchyard at Crowthorne (1987). Increasing and believed to be bird-sown. Atlas 2000: [86]

West Berks: no records

The National Collection of *Pernettya* (12 species and 28 cultivars) is held in the Heather Garden on the edge of Smiths Lawn next to the Valley Gardens above Virginia Water.

Erica vagans L. *Cornish Heath* ● n 6

Planted in graveyards. This plant has very long pedicels, and anthers that project well beyond the mouth of the corolla.

Silwood Park: on a grave in Sunninghill churchyard (1988).

Ascot: very local, dominating a single grave in Sunningdale churchyard (2001) with *Daboecia cantabrica*.

East Berks: not in Druce. Planted but very rare on acid soils; Bulmershe Park (1883), Bagshot (1931), at Heath Lake on Nine Mile Ride (**RNG**) by J.E. Lousley in 1961, Easthampstead Park by Bowen (1965), then again under pines at Heath Lake Crowthorne (**OXF**) by R.C. Palmer in 1970. Now more commonly planted on graves than in Bowen's time. <1% (1km²). Atlas 2000: [76], [96]

West Berks: Jarn Mound [4802] in 1961 (still frequent in 2001), Youlbury [4803] in 1964 (**OXF**), Greenham Common [503655] in 1970. Completely dominating a single grave in the churchyard at Woodland St Mary [3474], but not spread beyond where it was planted; March 2001. On a grave in Bucklebury churchyard [5570] in 2002. Atlas 2000: no records

Erica carnea L. *Winter Heath* ● n 12
Erica herbacea L.

Very popular winter-flowering garden plants with short pedicels and protruding anthers that lack appendages. The stems are prostrate and hairless with short (6-8mm) leaves. White flowered forms (like E. 'Springwood White') and purple flowered forms (like E. 'Ann Sparkes') are often planted on graves in church yards.

Silwood Park: on several graves at Ashurst

East Berks: common in Warfield graveyard (2000)

Erica x darleyensis Bean. = **E. erigena x E. carnea**

There are several popular horticultural forms of this hybrid, often with cream to reddish tints to the foliage on very young shoots. It is more bushy and multi-stemmed than *E. carnea* with longer leaves (to 13mm). Told from *E. erigena* by its much shorter stature (to 60cm) and stem flanges running all the way (or at least more than half way) to the next lowest node. E. 'Arthur Johnson' has lilac pink flowers and E. 'White Perfection' has white flowers.

East Berks: Winkfield and Warfield churchyards, Windsor, Reading.

Vaccinium vitis-idaea L. *Cowberry* n 6
Rhodococcum vitis-idaea (L.) Avrorin

East Berks: this is an extraordinary record, many miles away from its nearest native site. Very rare. Confined to a single patch of heathland opposite Broadmoor Hospital for the Criminally Insane, close to road works [860645] where the Devil's Highway passes under the new road from Bracknell to Camberley. Possibly introduced with landscaping plants that were used on the embankments of the road, which opened in 1992. First record 1998. Atlas 2000: [86]

PYROLACEAE

Pyrola minor L. *Common Wintergreen* chh 6

Woods and plantations on acid soils, often under pines; very local and rare.

Ascot: a local speciality. The first record: "Without flowers in a coppice of oak and birch scrub, a short half mile across the bog, eastwards from Ascot Station" (Watson, 1871). In a boggy wood west of the main road at Ascot Station in 1975 (**OXF**) [9168]. I can not find either of these two sites (although both may be errors for Englemere; west not "eastwards" in the first case, and an easting of 90 not 91 in the second case). Tower Hill (1966). There is still a small patch at Whitmoor Bog close to the security gates to the gas depot [892685] (1987-2004). Very local and rare under pines at Englemere [902684], close to the style by the railway bridge opposite Whitmoor Bog Cottages. I have pulled up the overgrowing bracken fronds each year in May since 1980, and the patch is thriving but spreading only slowly, measuring 5m x 3m in spring 1999, 6m x 3m in 2002 and 8m x 3m in 2004.

East Berks: "plentiful on Finchampstead Ridges, near the Spout Pond" (Druce, 1897). Wellington College (**RNG**) [8363] in 1928 and 1961, Honeyhill [823664] in 1965, pine wood at Broadmoor Bottom [856628] in 1970, in damp alder wood at Long Moor [7865] in 1983, Royal Military Academy Sandhurst in a pine-wood on Windsor Ride [865619] in 1983, on the north side of Heath Ride on Barkham Ride [817639] in 1986, south-west of Heath Pond [811639] in 1986. There is a good population on the trackside in the pine woods at Upper Star Post adjacent to the reservoir [873646], consisting of two patches (4m long and 2.5m) in June 2002, planted by

Ted Green in the 1970s. The best population at the moment is in the birch woodland to the north-west of Heath Pond in Simon's Wood [813642]; the largest of the patches stretched along 32m of the pathside in May 2002, and there was a smaller patch 100m to the south.

West Berks: no records.

MONOTROPACEAE

Monotropa hypopitys L. *Yellow Bird's-nest*

grh 6 ↓

Monotropa hypopitys subsp. **hypophegea** (Wallr.) Holmboe

Monotropa hypophegea Wallr.

Monotropa hypopitys L. var. *glabra* Roth

In woods of beech on chalky soils, very local and rather rare; typically grows in deep leaf litter. Almost restricted to the Thames valley.

Ascot: found by Ted Green under pines at Swinley [9068] in 1968. Not seen since.

East Berks: in the woods of Park Place (**OXF**) in 1871, near the path on the upper side of Bisham Wood coming up even in the path (**HULL**) in 1863, between Henley and Marlow, Quarry Wood, Wellington College (1966). Hurley (1966), Bisham Woods (1961), Ambarrow Hill (1981). Atlas 2000: [78], [88]

West Berks: all but confined to the Thames valley from Wytham down to Reading with outlying stations at Wescot Down, above Sparsholt Down and Kingston Warren [38] and Buckland (**OXF**) [39]. Wytham [40], AWRE Aldermaston [56], Ashampstead Common [57], Cholsey (**BM**) in 1839 and Streatley in 1872 (**OXF**, **BM** and **RNG**) [58], Sulham Woods (**RDG**) and Basildon (**OXF** and **LAN**) [67]. It grows on the southern edge of the road by Bridges Farm [652654] near Five Oaken. Atlas 2000: [40], [58], [66], [67]

PRIMULACEAE

Hottonia palustris L. *Water-violet*

hyd 5 ↓

A local speciality of ditches and ponds with nutrient rich water, mostly near the Thames.

Ascot: very local and rare; a small but thriving population in permanent standing water beneath *Salix cinerea* and *Iris pseudacorus*, growing with big tussocks of *Carex curta* in the swamp at the western end of Sunningwell Bog [925682]. The pond is just east of the point where the road past Ascot Station turns sharply right to go under the railway bridge. The population was in fine condition on 26 May 2002 with several hundred flowering spikes. First recorded from the nearby acid pool of Lower Sole's Pond east of Ascot Station in 1975 (**OXF**), where they were thought to be planted. In fact, these plants are an outlier of the main population, which is 50m to the south-east, through the boundary fence below the railway embankment.

East Berks: all but confined to the Thames meadows: Maidenhead, Windsor (**E**) in 1848, New Lock, ponds at the foot of Cookham Down, Sandford Mill, Sandhurst, plentiful in Sonning Meadows, Coleman's Moor, Blackwater, Twyford, Hurst, Stanlake, near Loddon Bridge. Ruscombe (1954) Waltham St Lawrence (1955), ditches between Marlow and Remenham. Decreasing fast. Whitley Wood [7168] (1956) (**LAN**). More than 500 plants in Great Lea Pond at Three Mile Cross [709687] in 1988. Much reduced and still declining. Now rare in the western reaches of the Thames from Sonning to Cookham but extinct or planted elsewhere. Formerly on the R. Blackwater at Sandhurst. Still at Cock Marsh, Great Lee Pond and Crazies Hill. <1% (1km²). Atlas 2000: [76], [77], [78], [87], [88], [96]

West Berks: "In all the ditches about Oxford" in 1666 (Merrett). Scattered records from the length of the Thames from Carswell down to Reading, rare or extinct in the Kennet valley, absent elsewhere. Buckland and Carswell [39], Hemp Hole near Newbury [46] in 1809, Abingdon [49], Bablock Hythe ferry and Wytham [40], Aldermaston [56] in 1987, Cholsey and Moulsoford [58], Radley [59], South Hinksey and Kennington [50], Tilehurst and Theale [67]. Atlas 2000: [39], [46], [49], [40], [56], [58], [66], [67]

Anagallis tenella (L.) L. *Bog Pimpernel*

chh 6 ↓

Lysimachia tenella L.

Peaty bogs, marshes, fens and woodland tracks with short turf; local, rare and decreasing.

NVC: M 13,24

Ascot: this species was recorded from Englemere Pond in 1961 but has not been seen recently. It was still at Whitmoor Bog in 1999.

East Berks: first recorded from Bulmershe Heath (1800) and still there in 1897, but long since buried beneath the suburban sprawl of eastern Reading. Windsor Great Park, Heath Pool, Sandhurst, Bagshot, Sunninghill, Virginia Water, Long Moor (pre-1897). Coleman's Moor (1962), Wellington College (1961), Woodley (**LAN**) in 1958. Heath Lake (1987). Bowen believed the plant to be

Umbilicus rupestris (Salisb.) Dandy *Navelwort*

hs 6 ↓

Cotyledon rupestris Salisb.

Umbilicus pendulinus DC., nom. illegit.

A local speciality of old limestone walls, in and about villages. It is at the extreme eastern edge of its range in Berkshire. It is at its happiest in the far west of Britain, in the damp, coastal conditions of Cornwall or West Wales, and finds most of Berkshire intolerably dry.

NVC: OV 41

East Berks: there is a record from Reading in 1843 but nothing since. There is an unlocalized record in the *Flora of Hampshire* from tetrad [8260] by the R. Blackwater. Atlas 2000: no records.

West Berks: confined almost exclusively to the Golden Ridge, with one southern record from the Roman ruins at Silchester [6262] in 1984 (but this may be on the Hampshire v.c.12 side of the border). On old limestone walls at Buscot, on the church roof at Little Coxwell [29], Littleworth, Longworth Manor, Longworth Church and on the top of the garden wall of Hinton Waldrist Grange [39], Donnington [46], Marcham, Tubney and Abingdon [49], Dry Sandford churchyard and Wytham Abbey [40], Sutton Courtenay and Culham churchyard [59], South Hinksey [50], on the Roman walls at *Calleva Atrebatum* [66]. Common only at Longworth and Hinton Waldrist [39] in 2002-04. Atlas 2000: [29], [39], [40], [59], [66]

Sedum dasyphyllum L. *Thick-leaved Stonecrop*

• chh 6

Old limestone walls in and about villages; “especially abundant on the coralline oolite to which it is practically restricted and in which it is widely distributed and locally common” (Druce). Rare elsewhere.

Ascot: no records

East Berks: the only record is from the Grotto in Frogmore, Windsor Home Park. Atlas 2000: [97]

West Berks: an entirely northern distribution, virtually confined to the Golden Ridge (north of 90). Stanford-in-the-Vale pits, Buckland, Charney Bassett and Pusey [39], Frilford, Gozzards Ford Fen, Drayton, Cothill (**LAN**) and Marcham [49], Appleton, Dry Sandford, Bessels Leigh and Cumnor [40], South Hinksey [50]. Recently from damp stonework by the mill race below the mill at East Hanney [4192]. Atlas 2000: [29], [39], [49], [40], [59], [50], [68]

SAXIFRAGACEAE

Darmera peltata (Torr. ex Benth.) Voss ex Post and Kuntze *Indian-rhubarb*

• hp 7

Saxifraga peltata Torrey ex Benth.

Peltiphyllum peltatum (Torrey ex Benth.) Engl., nom. illegit.

Not in Druce. Long-persistent garden relic in damp woodland and by streams and lakes.

East Berks: introduced by ornamental lakes; Sunninghill Park (1964), Frogmore (1967). <1% (1km²). Atlas 2000: [96], [97]

West Berks: Stanford Dingley [57] in 1961, Lockinge [48] in 1964. Atlas 2000: [46], [48], [57]

Chrysosplenium alternifolium L. *Alternate-leaved Golden-saxifrage*

hs 4

A local speciality of sheltered streambanks in oak and alder woods. Very local and rare in the southern part of West Berkshire, best seen on the slopes of Greenham Common. Usually growing with *C. oppositifolium* and much less common than it, but the big, Pennywort-sized, basal leaves of *C. alternifolium* are distinctive, and the edges of the inflorescence are greener (less uniformly golden coloured). The basal leaves are told from *Glechoma hederacea* by the small bristles (rather than dense hairs) on the upper leaf surface, and the indistinct veins on the underside of the leaf. The jizz of the crenate leaf margins is also distinctive (indented rather than convex).

NVC: M 36

East Berks: no records

West Berks: in Rivar Copse on Inkpen Hill [350621] in 1955, but I can find no ground remotely wet enough to support the species at this location in 2002. Recently in alder gullies on the north-facing slopes of Greenham Common [46], Crookham Common [56] and Great Wood (north of The Round House) [5165]. The most accessible site is in Aldernbridge Gully at [491640], in streamside mud just 150m north of the A339 road which runs along the southern edge of Greenham Common. Atlas 2000: [46], [56]

PARNASSIACEAE

Parnassia palustris L. *Grass-of-Parnassus*

hs 7 ↓

Marshy places and bogs. One of Berkshire's great rarities, restricted to the Ock district. Fens, especially in old peat cuttings, with *Molinia* and *Schoenus*.

NVC: M 13

East Berks: no records

West Berks: restricted to fens on the interior of the Northern Loop. In a bog between Tubney and Oakley House in great abundance in 1833. On Abingdon racecourse in a marshy spot, rather plentiful (pre-1897). Now found in only 4 sites: Frilford Heath golf course [442986], Cothill fen [49], Barrow Farm fen [49] and near Wootton [40]. Planted on Jarn Mound [4802] in Sir Arthur Evan's British Flora Garden in 1933. Atlas 2000: [49]

ROSACEAE

Rubus idaeus x **fruticosus**

West Berks: in Hungerford Park [3567] in 1930 (det. W.C.R. Watson).

Section A. Rubus

Subsection Rubus**Rubus bertramii** G. Braun

n 6

Rubus opacus Bertram, non Focke

Damp woods and heath margins

West Berks: Boars Hill [5002] in 1895

Rubus divaricatus P.J. Mueller

n 6

Heaths and peaty moors

Rubus fissus Lindl.

n 6

Rubus fastigiatus sensu Lindley, non Weihe and Nees

Rubus rogersii E.F. Linton

Heaths, moors and peaty woods.

Boars Hill [4802], Bagley Wood [5002] Greenham Common [4864] (**OXF**), Silchester [6262]

Rubus nessensis Hall

n 6

Oak and birch woods, an indicator of ancient woodland.

East Berks: Ambarrow [8262] (**OXF**).

Rubus plicatus Weihe and Nees

n 6

Dry sandy soils; one of the commonest heathland brambles

East Berks: Long Moor [7865], Sandhurst [8361] in 1896 (**OXF**), Broadmoor Bottom [8562] (**Cantab**)

West Berks: Cothill [4699]

Rubus scissus W.C.R. Watson

n 6

Birch woods and heaths

West Berks: Bagley Wood [5002] in 1918

Rubus sulcatus Vest

n 6

Damp woods and heath margins

West Berks: Boars Hill [4802] (**OXF**)

Subsection *Hiemales*

SERIES I. SYLVATICI

Rubus albionis W.C.R. Watson n 6

Rubus schlechtendalii Weihe ex Link var. *anglicus* Sudre

Thickets on the edge of heathland.

West Berks: Mortimer Common [6564] in 1894 (**LIV**), behind the Post Office at Boars Hill [4802] in 1961 and 1979 (**Cantab**), Greenham [4765] in 1931

Rubus macrophyllus Weihe and Nees var. *boulayi* Sudre n 6

Hedges and wood margins.

East Berks: Sandhurst [8361]

West Berks: Brimpton [5664], Silchester [6262] (**OXF**)

Rubus calvatus Lees ex A. Bloxam n 6

Margins of heaths and woodland.

East Berks: Sandhurst [8361] in 1898

Rubus confertiflorus W.C.R. Watson n 6

Heaths and birch woods

Rubus gratus Focke n 6

Heaths.

East Berks: Finchampstead [4505] (**OXF**)

Rubus lentiginosus Lees n 6

Margins of heaths and woods

Rubus lindleianus Lees n 7

Frequent in hedges on acid soils, conspicuous with its masses of white flowers in late summer. One of the most frequent brambles. Shining stems with numerous pale prickles, white petals and reflexed sepals and small fruits.

Ascot: the common hedgerow bramble.

West Berks: Mortimer [6764] in 1894.

Rubus macrophyllus Weihe and Nees n 6

Woodland, thickets and the margins of heaths. The stem is thinly hairy and the prickles are short and the large leaves are green on both sides.

Rubus platyacanthus P.J. Müller and Lefèvre or Lefèvre n 7

Margins of heaths and woodland edge. The leaves are digitate and the petals are white.

Rubus poliodes W.C.R. Watson n 7

Margins of heaths and woodland edge

East Berks: Earley Heath [7472] (**OXF**)

West Berks: Boars Hill [4802]

Rubus pyramidalis Kaltentb. n 7

Heaths and birch woods

West Berks: "golf course half a mile east of Tubney near Frilford" [4398] (**Cantab**)

Rubus sciocharis (Sudre) W.C.R. Watson n 7

Wood borders and hedge-banks. The stems are green and thinly hairy; told from *R. gratus* by the cordate terminal leaflets, short prickles and white petals.

Rubus silvaticus Weihe and Nees n 7

Woodland and wood margins. The rachis is markedly flexuose and the anthers are hairy.

West Berks: Ufton Wood [6170], Mortimer [6764]

SERIES 2. RHAMNIFOLII

Rubus amplificatus Lees n 7

Hedgerows and locally abundant on heaths

East Berks: Bearwood [7768], Ambarrow [8262] (**OXF**)

West Berks: Bagley Wood [5002]

Rubus cardiophyllus Lef. and P.J. Muell. n 7

Frequent on margins of woodlands and heaths

Silwood Park: dominant in the rabbit exclosures on Pound Hill

East Berks: Bracknell [8769] in 1931

West Berks: Hurst Hill [4704]

Rubus cissburiensis W.C. Barton and Riddelsd. n 7

Locally very common in hedge-banks, heaths and wood borders, especially in the neighbourhood of London.

Rubus milfordensis Edees n 7

Rubus villicaulis sensu Rogers, non Köhler ex Weihe and Nees

Rubus broensis auct., non W.C.R. Watson

Rubus holerythros sensu W.C.R. Watson, non Focke

Margins of heaths and woodland edge

Rubus nemoralis P.J. Muell. n 7

Rubus selmeri Lindeb.

Frequent on acid soils; heaths and birch woods. This is the common heathland bramble.

West Berks: Snelsmore Common [4671] 1933 (**OXF**)

Rubus polyanthemus Lindeb. n 7

Rubus pulcherrimus Neuman, non Hook.

Hedgerows. After *R. ulmifolius* this is the second commonest of the brambles. The prickles are subulate with their red bases often contrasting with the duller coloured stem. The terminal leaflet is often divided, so that 6-foliate or 7-foliate leaves occur on most bushes. The broad petals are bright pink.

East Berks: Bagshot [8763], Sunningdale [9567], Caesars Camp [8665]

Boars Hill [4802], Greenham [4765]

Rubus rhombifolius Weihe ex Boenn. n 7
 Rubus incurvatus Bab. var. subcarpinifolius (Rogers) Riddelsd.

Margins of heaths and woods.

West Berks: Boars Hill [4802] in 1925, Brimpton [5664] in 1920, Shalbourne [3163] Bucklebury [5570] (**OXF**)

Rubus rubritinctus W.C.R. Watson n 7
 Rubus cryptadenes Sudre, non Dumort.

Margins of heaths and woods.

West Berks: Tilehurst [6874] in 1892 (**OXF**)

Rubus subinermoides Druce n 7
 Rubus pubescens Weihe, non Raf. var. subinermis Rogers

Woodland.

East Berks: Ambarrow [8262] (**OXF**)

SERIES 3. SPRENGLEIANI

Rubus sprengelii Weihe n 7

Heaths.

East Berks: Wokingham Road, Crowthorne [8463] (**Cantab**)

SERIES 4. DISCOLORES

Rubus anglocandicans A. Newton n 7
 Rubus falcatus auct., non Kaltenb.

Heaths.

West Berks: Frilford Heath [4497] in 1895 (**LIV** and **Cantab**)

Rubus armeniacus Focke • n 6
 Rubus procerus auct. brit., non P.J. Müller ex Boulay

This is the commonest large bramble on waste land in towns. Railway embankments, ditches, rubbish tips and hedges. The fruit is perhaps the tastiest of all the brambles. Known by its leaves which are dark green above but chalky white-felted beneath, with large (> 10cm) terminal leaflets. It has been cultivated as Himalayan Giant for more than 100 years, but there is no good evidence that the plant originates from the Himalaya. It is close to a German plant called 'Theodore Reimers' which Eedes and Newton speculate was exported to the United States, where it was widely propagated and given the name Himalayan Giant for no particularly good reason, then exported back to European nurseries under this name. Much planted on allotments during the 1939-45 World War, and escaping frequently from them, via birds and urchins, onto waste ground nearby.

Silwood Park: a massive plant dominates the periphery of the Water Tank

East Berks: common in all the towns, on waste ground and near allotments. Swallowfield, Reading, Windsor, Maidenhead, Binfield, Bracknell in 2002.

West Berks: Hungerford [3368] in 1891, Frilford [4497] in 1963. Newbury [46] in 1999. Drayton [4694]. On abandoned allotments at Botley [40] and Grandpont [50] in 2002.

Rubus armipotens W.C. Barton ex A. Newton n 7
 Rubus pseudobifrons sensu W.C.R. Watson, non Sudre ex Bouvet

Margins of heaths and woodland.

West Berks: Aldworth [5579] in 1890, Boars Hill [4802] and Hurst Hill [4704] in 1965

Rubus hylophilus Ripart ex Genev. n 7
Rubus brittonii W.C. Barton and Riddelsd.

Margins of heaths and woodland

Rubus ulmifolius Schott n 8
Rubus inermis sensu A. Beek et auct., non Pourret

Grows in full sun; this is the commonest bramble of open grassland, waste ground and hedgerows. It even grows on clay and chalk. The plant has red stems and the leaves are white-felted beneath. The terminal leaf lobe is smaller (less than 10cm) than in *R. armeniacus*. Very late-flowering.

This is an unusual bramble in that it is not apomictic; it produces seeds by normal sexual reproduction involving reduction division (meiosis) and fertilisation. This means that unlike most apomictic brambles, the parents and offspring are not identical, and so the species is actually rather variable (there are 20 named subspecies and 92 named varieties). However, because of the breeding system, these represent diploid recombinations and are hence without any taxonomic justification.

Silwood Park: Silwood Bottom growing amongst the *Rosa rugosa* thicket, on sunny waste ground at Tractor Sheds, and growing through the steel mesh fence at the Reactor. This is the dominant bramble inside the rabbit enclosures in Nash's Field and Pound Hill. The relationship between this plant and the rabbits is interesting. The plant is highly palatable when small (despite the prickles) and so rabbit grazing prevents the invasion of grassland by brambles. However, once a bramble thicket is formed, the rabbits use it as harbourage and shelter. So on the one hand the rabbits destroy it, but on the other hand they use it.

East Berks: records from [7065], [6870], [8570] and [9080]

West Berks: frequent in hedges and scrub (but not shade tolerant) on calcareous soils in North Berkshire; rare elsewhere

Rubus ulmifolius x vestitus

West Berks: Bagley Wood [5002], in 1929, Hen Wood [4803], Boars Hill [4802], Tilehurst [6874], Hurst Hill [4704]

Rubus winteri P.J. Müller ex Focke n 7

Hedge-banks and thickets. Well spaced prickles are long and strong, and the panicle is lax with showy pink flowers.

SERIES 5. VESTITI

Rubus criniger (E.F. Linton) W.M. Rogers n 7
Rubus gelertii Friderichsen var. *criniger* E.F. Linton

Hedge-banks and wood borders.

West Berks: Wytham [4708] in Bean Wood in 1950 (**Cantab**)

Rubus leucostachys Schleich. ex Sm. n 7

Woods and heaths. The petals filaments and styles are all bright pink.

West Berks: Boars Hill [4802] in 1933 (**OXF**)

Rubus longus (W.M. Rogers and Ley) A. Newton n 7
Rubus lasiocladus Focke var. *longus* Rogers and Ley

Wood borders, hedge-banks are the margins of heaths.

Rubus surrejanus W.C. Barton and Ridd. n 7
Rubus hirtior W.C.R. Watson

Hedge-banks and woodland borders. Often introduced with forestry operations.

Rubus vestitus Weihe n 7

Common, often abundant in woodlands on calcareous soils. This is one of our most frequent woodland brambles. The dull purple stem is densely hairy and the prickles are long, straight and slender. The leaves are hairy on both surfaces (softly and densely so beneath) and the terminal leaflet is almost round.

West Berks: frequent in north and west Berkshire; Wytham [4708] in 1946 (**OXF**)

SERIES 6. MUCRONATI

Rubus egregius Focke n 7

Heaths and birch woods.

West Berks: Boars Hill [4802] in 1933 and Frilford Heath [4497] in 1964 (**Cantab**).

Rubus mucronatiformis (Sudre) W.C.R. Watson n 7

Rubus hypomalacus Focke subsp. *mucronatiformis* Sudre

Woods and hedge-banks.

West Berks: frequent on acid soils; Boars Hill [4802] in 1934

SERIES 7. MICANTES

Rubus decussatus W.C. Barton ex Newton n 7

Margins of woods and heaths

Rubus glareosus W.M. Rogers n 7

Woods.

Rubus leightonii Lees ex F.M. Leight. n 7

Rubus radula Weihe ex Boenn. var. *anglicanus* Rogers

Margins of heaths and woods

West Berks: Hermitage [5173] (**OXF**)

Rubus moylei W.C. Barton and Ridd. n 7

Woods.

West Berks: Mortimer Common [6564] in 1894 (**LIV**)

Rubus raduloides (W.M. Rogers) Sudre n 7

Rubus anglosaxonicus Gelert var. *raduloides* Rogers

Woods.

West Berks: Boars Hill [4802] (**OXF**) and in 1965, Greenham [4765] (**OXF**), Hen Wood [4803]

Rubus trichodes W.C.R. Watson n 7

Rubus foliosus sensu W.C.R. Watson, non Weihe

Woods and wood margins.

West Berks: frequent; Hungerford [3368] in 1891 and Bagley Wood [5002] in 1932 (**OXF**)

SERIES 8. ANISACANTHI

Rubus adamsii Sudre n 7

Hedgerows.

West Berks: Mortimer Common [6564] in 1883 (**LIV**)

Rubus ahenifolius W.C.R. Watson n 7

Heaths.

West Berks: Silchester Common [6262] in 1990, D.E. Allen

- Rubus cinerosus** W.M. Rogers n 7
 Common and widespread on the margins of heaths and woods. The stems are rough with numerous short pricklets and fewer stalked glands, and the strong prickles are distinct from the pricklets.
 West Berks: Frilford [4497] in 1891, Silchester [6262], Tilehurst [6874], Mortimer Common [6564] (**OXF**)
- Rubus infestus** Weihe ex Boenn. n 7
 Rubus taeniarum Lindeb.
 Woods and the margins of heaths.
 East Berks: Bagshot [8763], Blackwater [8559] (**OXF**)
 West Berks: Boars Hill [4802] in 1895
- Rubus leyanus** W.M. Rogers n 7
 Woods, hedge-banks and heathland margins
- SERIES 9. RADULAE*
- Rubus echinatoides** (W.M. Rogers) Dallman n 7
 Rubus radula Weihe ex Boenn. var. echinatoides Rogers
 Margins of heaths and woods.
 West Berks: Bagley Wood [5002] in 1894, Greenham [4765] in 1895 and 1951
- Rubus echinatus** Lindl. n 7
 Rubus discerptus P.J. Müller
 Heaths and birch woods.
 East Berks: Finchampstead [7963] (**OXF**)
 West Berks: frequent; Ilsley [4981] (**OXF**), Frilford [4497] (**Cantab**)
- Rubus euryanthemus** W.C.R. Watson n 7
 Rubus pallidus Weihe var. leptopetalus Friderichsen ex Rogers
 Alder woods and oak-birch woods.
 West Berks: Burnt Hill [5674]
- Rubus flexuosus** P.J. Müller and Lef. n 7
 Woodlands
- Rubus insectifolius** Lef. & P.J. Müll. n 7
 Rubus nuticeps W.C. Barton and Riddelsd.
 Heaths, hedge-banks and wood borders.
 West Berks: Hen Wood [4803], Didcot [5190] (**OXF**)
- Rubus largificus** W.C.R. Watson n 7
 Wood borders, heaths and hedge-banks
- Rubus longithyrsiger** Lees ex Focke n 7
 Damp woods and shady hedge-banks. It has low-arching purple stems with few hairs but many short stalked glands.
- Rubus radula** Weihe ex Boenn. n 7
 Woods, heaths and hedgerows.

West Berks: frequent in north and west Berkshire: Catmore [4580] in 1887

Rubus rudis Weihe n 7

Woods, heaths and hedge-banks

Rubus rufescens Lef. & P.J. Müll. n 7

Rubus rosaceus Weihe and Nees var. *infecundus* Rogers

Frequent; forming thickets in woods on less acid soils.

SERIES 10. HYSTRICES

Rubus atrebatum A. Newton n 7

Rubus cognatus N.E. Br., pro parte

Rubus viridis sensu Rogers, non C. Presl ex Ortm.

Woods, heaths and hedge-banks. Named after the ancient Berkshire tribe.

East Berks: Sandhurst [8361] (OXF), Crowthorne [8463]

West Berks: occasional in [59], [68]

Rubus bercheriensis (Druce ex W.M. Rogers) W.M. Rogers n 7

Rubus rosaceus Weihe and Nees var. *bercheriensis* Druce ex Rogers

Woods margins, heaths and hedges

West Berks: occasional in [59], [67], [68]

Rubus dasyphyllus (W.M. Rogers) E.S. Marshall n 7

Rubus koehleri Weihe and Nees subsp. *dasyphyllus* Rogers

Widespread and abundant in many habitats including woods, heaths and hedges on peaty acid soils. this is the commonest bramble in places where *R. ulmifolius* does not grow. The stems are hairy, the leaflets are glabrous above but softly hairy beneath, and the petals are pink.

Silwood Park: the common hairy-stemmed bramble of partial shade, as on the edge of Rookery copse and amongst the birch trees on Reactor Bank.

East Berks: common in woods throughout

West Berks: Greenham [4765], Wash Common [4564], Frilford [4497], Wytham [4708]

Rubus infestior Edees n 7

Rubus infestus sensu W.C.R. Watson, non Weihe ex Boenn.

Dry woods, hedges and heaths.

Unlocalized. No recent records.

Rubus marshallii Focke and W.M. Rogers n 7

Woodland borders and heaths. Widespread.

Silwood Park: on waste ground at the Header House in full sun

East Berks: Finchampstead [7963], Wellington College [8363], Crowthorne [8463] (OXF)

West Berks: Boars Hill [4802]

Rubus phaeocarpus W.C.R. Watson n 7

Widespread in heaths and wood borders.

East Berks: Sandhurst [8361], Crowthorne [8463]

West Berks: Greenham [4765], Tilehurst [6874], Mortimer [6564]

Rubus watsonii W.H. Mills n 7

Woods, heaths and hedge-banks

Section B. Corylifolii

Rubus conjugens (Bab.) Warren n 7

Rubus corylifolius Smith var. *conjugens* Bab.

Rubus purpureicaulis W.C.R. Watson

Rubus ooliticus W.C.R. Watson

Hedges; widespread.

West Berks: Buckland Warren [3495], Wootton [4701] in 1932 (**OXF**)

Rubus pruinosis Arrh. n 7

Rubus sublustris Lees

Woods, heath margins and hedge-banks. Widespread and locally frequent.

West Berks: Boars Hill [5002] in 1932, Frilford and Hurst Hill (**OXF**)

Rubus tuberculatus Bab. n 7

Rubus dumetorum Weihe ex Boenn. var. *diversifolius* J.B.L. Warren

Rubus myriacanthus sensu W.C.R. Watson, non Focke

Hedges, railway embankments and waste ground in towns and villages. Early flowering.

West Berks: Radley [5398] (**OXF**).

Rubus warrenii Sudre n 7

Hedge-banks and woods. An endemic, at its southern limit in Berkshire.

Potentilla palustris (L.) Scop. *Marsh Cinquefoil* hel 5 ↓

Comarum palustre L.

A local rarity of boggy places. This is an abundant plant in northern and western Britain, but most of Berkshire is far too dry for it. Habitat destruction through drainage was the cause of its decline.

NVC: M 22,27; S 2-4,8,10-12,25; W 1,4

East Berks: local and very rare in Heath Pool (**OXF**) near Wellington College in 1890. Considered extinct here by Bowen, but it survives in 2000 in a shady bog at Queens Mere [818649].

West Berks: at Kintbury [36] in 1871 (extinct).

Potentilla argentea L. *Hoary Cinquefoil* hs 6

A local speciality of short, heathy grass swards on slopes and banks on warm free-draining soils with *Ulex*, *Festuca*, etc.; absent from calcareous soils. It colonises new sites poorly, but is long-persistent in established sites. Distinguished from other cinquefoils by its narrow, parallel-sided leaflets, white tomentose beneath, and from *P. inclinata* by its smaller petals (4-5mm not 5-7mm).

NVC: U 1

Ascot: Kingsride in 1965, no recent records

East Berks: roadsides and hedge-banks on sandy soil in sunny places; very local and rather rare. Near Lucas Hospital, Wokingham, Bulmarsh Park, Earley, old brickfield in Wellington College grounds, Loddon Bridge (**RNG**), Bray Wick, Maidenhead, plentiful in a gravelly lane between Coleman's Moor and Twyford (all pre-1897). Wellington College (**RNG**) in 1915, Finchampstead (**RNG**) in 1918. Formerly associated with other rarities like *Dianthus armeria*, *Petroselinum segetum*, *Torilis nodosa* and *Arabis glabra*. Wellington College (1960), Woodley (1962). Recently from Brook Farm, Winkfield [9071]. <1% (1km²). Atlas 2000: [77], [86], [97]

West Berks: local and rare centred on Frilford Heath golf course [4496] in the north-east and on Yattendon in the south-east; absent elsewhere. Frilford pit [448986] in 1988, Cothill [463000] in 1972, Tubney meadow [442991] in 1998, Frilford Heath North Field [447981] in 2001, specially prepared bare ground on Frilford Heath Golf Course practice ground [4498] in 2003, Drayton [4692], Wasing pits [5863] in 1988, dozens of plants on gravel near Building C24 at AWRE Aldermaston [5963] in 2003, Yattendon [57], path-side near Ufton [617677] in 2002, Padworth Bridge Mill [66], Theale pits (**RNG**) [67] in 1953. Atlas 2000: [49], [40], [56], [57], [66], [67]

Potentilla x mixta Nolte ex Rchb. = **P. erecta x P. reptans** and **P. anglica x P. reptans**

Potentilla x italica Lehm.

Commoner than, and much confused with, *P. anglica* from which it is told by having all its petioles the same length and by being highly sterile. Under-recorded.

East Berks: collected at Blackwater [8560] in 1892, Earley Heath [7570] in 1893 and Binfield [8070] in 1895 (all in **OXF**).

West Berks: At Tilehurst [6570] in 1962 (det. J.D. Grose). Near Heath End [5826 6351] and on the Wasing Estate [5839 6358] in August 2003 (herb. A.R.G. Mundell).

Potentilla anglica Laichard. *Trailing Tormentil*

hs 6

Potentilla procumbens Sibth., nom. illegit.

A local speciality Woods, heaths, hedge-banks; rather local and not very common. Wood margins and woodland rides on moderately acid soils. Occasional but decreasing; absent from the chalk. This species arose by hybridisation associated with chromosome doubling; its parent species *P. erecta* and *P. reptans* both have 28 chromosomes, and *P. anglica* has 56. Told from *P. erecta* by some flowers with 5 petals (not all 4-petalled), carpels > 20, lower stem leaves with long petioles, > 10mm. Much over-recorded for *P. x mixta* (see above), which has few if any swollen achenes (it is a sterile hybrid) and all petioles the same length - not decreasing markedly as in *P. anglica*.

NVC: MG 4

Ascot: no recent records, but known in the past from Sunninghill Park and Virginia Water.

East Berks: on the roadside across Bagshot Common, Earley Heath, Twyford, Binfield, Bulmarsh, Coleman's Moor, Bearwood, Finchampstead Leas, Wellington, Sandhurst, Shurlock Row, Windsor Great Park. Bracknell, Frogmore. The latest records are from Loddon Hill Woodley (1968), Ashley Hill (1970), Bulmershe Wood (1972), Jealott's Hill [873733] (1973), Maidenhead Thicket (1986), Great Wood at Waltham [8576] (1987), Coppid Beech (1987) and Bisham Wood (1988). <1% (1km²). Atlas 2000: all except [78], [96]

West Berks: found only to the east of 45 or north of 95. Cake Wood [36], Furzewick Down [38], Pusey and Buckland [39], Tubney Wood and Wytham [40], Bagley Wood [50], Snelsmore and Ashridge Wood [47], Wasing Wood and Aldermaston [56], Hermitage [57], Padworth Gully [6165], Tilehurst [67]. Recent records from Lough Down at Streatley [5881] in 1986, Moor Copse [6373] in 1983, AERE Aldermaston [6063] in 1999, and Greenham Common [5164] in 2001. Atlas 2000: [29], [36], [38], [39], [46], [47], [49], [40], [56], [57], [58], [50], [66], [67]

Fragaria moschata (Duchesne) Weston *Hautbois Strawberry*

• hr 5

Fragaria vesca L. taxon *moschata* Duchesne

Fragaria muricata sensu D.H. Kent, non L. nec Miller

Hedge-banks, very rare. The leaves are dull (not shiny) on the upper side, and the top-most pedicels have many spreading hairs at fruiting. Possibly under-recorded.

East Berks: "opposite the Whitening Factory at Warren Row. The hedge is the border of an old orchard, and the plant, which does not appear to be in the orchard, has extended itself into the adjoining bushy common" (Druce). Between Windsor and Cranbourne Park (1897). Finchampstead (1918) Plantations and hedges, rare. Bowen thought these sites extinct. Atlas 2000: no records

West Berks: Kintbury [36] and Bere Court [67] pre-1897; Jarn mound [40] from 1965-81, between Aldermaston and Padworth [6065] in 1961, gravel pit at Tilehurst (**LAN**) [67] in 1958. Atlas 2000: [40]

Duchesnea indica (Jacks.) Focke *Yellow-flowered Strawberry*

• hr 5

Fragaria indica Jackson

East Berks: Reading [7371] from 1983-88

West Berks: Newbury [4766] in 1982. Kingston Bagpuize House [4097] in 1988; still there, and thoroughly naturalized in open woodland in 2003.

Geum rivale L. *Water Avens*

hs 5

A local speciality of meadows and bushy places on peaty soil. Damp woods and water meadows in south-west Berkshire. This plant, so characteristic of woods and streamsides in Northern and Western Britain, is a great rarity in Berkshire.

NVC: M 27; W 8

Ascot: very rare, planted on the grave of Rose Eleanor Challis (d. 7 March 1993) in South Ascot churchyard on 26 April 2004. This is the only grave-planted individual I have ever seen.

East Berks: very rare. The best site is at Stanford End by the Fritillary Meadow. Absent from most of the area. <1% (1km²). Atlas 2000: [76], [77], [86]

West Berks: all but restricted to the Kennet valley. Trenches by the railway from Hungerford to Reading, etc. In Druce's time it was locally common about Theale, Midgham and Aldermaston, often associated with *Carex paniculata*. By Bowen's time it was reduced to a few sites by the Rivers Blackwater, Enborne, Lambourn, Kennet and Loddon. Last seen on Appleton Lower Common [40] in 1982. Now restricted entirely to the south of 80. Hungerford, Inkpen and Kintbury [36], Shefford [37], Hamstead Marshall and Bulls Lock [46], Boxford [47], Goldfinch Bottom, Thatcham and Midgham [56], bridge over the R. Kimber by Stanford Dingley [57], Sulhamstead [66], Theale meadows and meadows between Bradfield and Tidmarsh [67]. Recent records from Cake Wood [3068], by the stream at Manor Farm Inkpen [361641], Benham Loch [424672], Sole Common [413707], Boxford [4271], by the R. Pang in Moor Copse [6374]. Atlas 2000: [29], [36], [46], [47], [56], [57], [66], [67]

Geum x intermedium Ehrh. *Hybrid Avens* = **G. rivale x G. urbanum**

Coppices and meadows; very local and rather rare. Intermediate in all respects and highly fertile, forming a complete spectrum between the parents.

East Berks: Foxhill, Reading (**RNG**) [77] in 1959.

West Berks: Newbury [46] and Boxford [47] pre-1920. More recent records are all from the Pang Valley in [67]: Moor Copse, Sulham (**LAN**), Bradfield, Englefield and Pangbourne.

Agrimonia procera Wallr. *Fragrant Agrimony*

hs 6

Agrimonia odorata auct., non (L.) Miller

Agrimonia repens sensu De Langhe et al., non L.

Wood borders, hedges, roadsides and grassy places, favouring clay soils. Much less common than *A. eupatoria*, and over-recorded in the past, probably because the possession of scented leaves is not a good character (some *A. eupatoria* genotypes have fragrant foliage). The fruiting hypanthium is bell shaped with diverging sides (rather than obconical with roughly parallel sides as in *A. eupatoria*), and the lowest rank of barbs on the fruit are reflexed (pointing downwards) rather than patent (pointing outwards and slightly upwards).

Ascot: no records

East Berks: Windsor Forest, Twyford, Swinley, Wokingham, Haines Hill, Arborfield, Bulmershe, Bowsey Hill, Hurley pit, Bracknell, White Waltham, Old Windsor. Dinton Pastures, Lock's House, Warfield, Windsor Castle. There was a patch in Maidenhead Thicket [855808] in 2003. < 1 % (1km²). Atlas 2000: [77], [86], [88], [97]

West Berks: Badbury Hill [29], Hungerford [36], north of Hungerford Newtown [37], Welford, Hemley Copse and Chieveley [47], Catmore and Chilton [48], Ock Meadow [49], Long Leys, Cumnor and Wytham [40], Heath End, Bowdown House and Great Wood [56], Burnt Hill Yattendon and Fence Wood [57], North Unhill Bank, Lollingdon Hill, Aston Tirrold and Blewburton Hill [58], Sutton Courtenay [59], Bagley Wood [50], Pangbourne and Sulham [67]. Atlas 2000: all except [38], [39], [47], [68], [69]

Sanguisorba officinalis L. *Great Burnet*

hs 6 ↓

Poterium officinale (L.) A. Gray

Water meadows and by ditches. Very local and decreasing as a result of drainage, ploughing and pasture improvement.

Silwood Park: seeds sown in the 18 high diversity plots of the Tilman Experiment in Nash's Field experiment in October 1991 were thought to have failed, until a single plant was found amongst *Tanacetum vulgare* in the upper half of Block H on 13 July 2004!

Ascot: no records.

East Berks: rare in the Thames meadows at Sonning and Twyford. Also at Sandhurst, Wellington College, Coleman's Moor, Bracknell, Finchampstead, Englemere Pond, Tower Hill, Bearwood, Whiteknights Park in old grassland, Bisham Wood, north of Blackwater. By Bowen's time it was extinct at many of these sites. Recently at Dinton Pastures, Douglas Farm, Shepherd Meadow. 1% (1km²). Atlas 2000: [77], [86], [88]

West Berks: uncommon in the Thames and Kennet valleys and absent elsewhere. Grafton Lock [29], Pucketty Farm and Charney Bassett [39], Chimney Meadow [30], Donnington [46], Knollend [48], Newbridge, Bablockhythe, Swinford, frequent in Wytham

meads, Farmoor reservoir and Cumnor [40], Heath End, Falcon Fields [5974 6268], Osgoods Gully and Aldermaston (**LAN**) [56], Frilsham [57], Blewbury and Unhill [58], Radley (**RNG**) [59], Iffley meadows and South Hinksey [50], Mortimer and Sulhamstead [66], Tidmarsh, Burghfield Mill (**RDG**) and Theale [67]. Atlas 2000: [29], [37], [38], [39], [46], [48], [49], [40], [56], [57], [58], [59], [50], [66], [67]

Alchemilla filicaulis Buser *Hairy Lady's-mantle*

hs 6 ↓

Alchemilla filicaulis subsp. **vestita** (Buser) M.E. Bradshaw

Alchemilla colorata auct., non Buser

Alchemilla vestita (Buser) Raunk.

Alchemilla hybrida F.W. Schmidt subsp. *vestita* (Buser) O. Bolòs and Vigo

Alchemilla vulgaris L.

Marshes, damp pastures and grassy places in woods; local, rare and decreasing. The upper part of the stem and the whole of the inflorescence is rather densely hairy, and the stem base and petiole bases are tinged wine red.

East Berks: in a damp meadow near the spring at Crazy Hill; frequent there in 1896. Crazies Hill (**RNG**) in 1931, Hurley (1962). Confined to the section of the Thames between Wargrave [7580] and Hurley [8080]. 1% (1km²). Atlas 2000: [78]

West Berks: in two centres, the largest in the western Kennet valley, and the other in the Northern Loop. There is an outlying population in Hailey Wood [28]. Hungerford meads, Woodhay and Kintbury [36], Rack Marsh Bagnor (**OXF**) [453693], Wickham [46], Wytham [40], Bagley Wood [50]. Atlas 2000: [28], [36], [47], [40]

Rosa multiflora Thunb. *Many-flowered Rose*

• n 6 ↓

Planted in hedgerows and a garden outcast on waste ground. The air can be heavy with its fragrance in June. It is similar to several of the common garden Ramblers, but the flowers are single (not double as in 'Rambling Rector') and the corymbs of flowers are smaller than in 'Kiftsgate'.

Ascot: by the army huts on Kingsride (**OXF**) [9065] in 1965.

East Berks: abundant in the planted Hawthorn hedge protecting the western boundary of Summerlease Quarry in northern Maidenhead [890829] on 9 June 2002.

West Berks: Welford Manor (**OXF**) [4073] in 1978, Mapleash Wood [4671] in 1970, Cholsey (**BM**) in 1952, Aston Tirrold [58] 1961-76 (**LAN**), Barton Lane, Abingdon (**OXF**) [5097] in 1980.

Rosa x pseudorusticana Crép. ex T.A. Preston = **R. arvensis x R. sylosa**

Rosa x bibracteoides Wolley-Dod

East Berks: collected by Druce at Winkfield [8570] in 1893 (**OXF**)

Rosa x verticillacantha Merat = **R. arvensis x R. canina**

Rosa x kosinskiana Besser

Rosa x pouzinii auct., non Tratt.

Rosa x deseglisei Boreau

Rosa x wheldonii Wolley-Dod

West Berks: determined by R. Melville (as *R. arvensis x R. dumetorum*) from Beenham [5868]. Beedon Wood (**BM**) [47] in 1887, Frilford Heath (**BM**) [49] in 1895, Boars Hill (**OXF**) [40]

Rosa pimpinellifolia L. *Burnet Rose*

n 5

Rosa spinosissima L., pro parte

Mainly a coastal plant in Britain, but found on heaths and limestone inland. Usually a garden escape in Berkshire.

NVC: W 8

Silwood Park: naturalised in long grass in the graveyard of St Michael's Church at Ashurst since 1971.

East Berks: not in Druce or Bowen. A garden escape, occasionally found on walls or waste ground. Silver Street in Reading [7172] on garden walls (1988). Recent records from Kennet Mouth, South Twyford, Crazies Hill, Savernake Park. In a hedge at White Waltham [855777] in July 2003. <1% (1km²). Atlas 2000: [77], [78], [86]

West Berks: Crookham Heath (**OXF**) [56] in 1891. On walls at Buscot [29] in 1987. Atlas 2000: [29], [58]

Rosa ferruginea Vill. *Red-leaved Rose*

• n 6

Rosa glauca Pourret

Rosa rubrifolia Villars, nom. illegit.

Silwood Park: self-sown by Flowers Halls in 1989, and in the Rosemary bed bordering the main drive of the Science Park in October 2003.

East Berks: hedges, rather local and rare. Not in Druce or Bowen. Recently at Waltham, Stubbing's Heath and Ashley Hill.

West Berks: self-sown in the grounds of the Old Rectory at Burghfield [6668] in 2004.

Rosa virginiana Herm. *Virginian Rose* • n 6

East Berks: not in Druce or Bowen, but casual on rubbish tips and waste ground. Whiteknights Park (1973).

West Berks: Cothill pit [49] in 1953, Padworth Common tip [66] in 1966, south of Theale [6569] in 1986

Rosa stylosa Desv. *Short-styled Field-rose* n 6
Rosa systyla Touss. Bast.

A local rarity of hedges, scrub and wood borders; found on clay soils, and probably absent from large parts of the chalk. Told from the much commoner *R. arvensis* (which also has its styles fused into a column) by the fact that its styles are conspicuously shorter than the stamens, and by its pinnately lobed (not entire) sepals.

East Berks: Winkfield, Whistley Mill, Loddon Bridge, Twyford (**BM**), Hurst (**OXF**), Wargrave, Knowl Hill, Littlewick Green, Ashridge Wood, Waltham, Ruscombe, Blackwater, Sandhurst. Maidenhead (**OXF**) in 1895, and by the Loddon (**OXF**) in 1893, Stratfield Saye in 1918, Hurley (1966). Atlas 2000 [76], [88]

West Berks: Pucketty Farm [39], Wytham and Cumnor Hill [40], Headley and Brimpton (**OXF**) [56], Mortimer (**OXF**) [66], Bradfield [67]. Atlas 2000: [46], [40], [56], [57]

Rosa x andegavensis Bastard = **R. stylosa x R. canina**

East Berks: by the R. Loddon (**OXF**) [76] in 1893, at Shinfield (**OXF**) [76] in 1933

West Berks: Tubney (**E**) [49] in 1919, Brimpton (**OXF**) [56] in 1910

Rosa caesia Sm. *Northern Dog-rose* n 6

Both subspecies of *R. caesia* are recorded from Berkshire. They are told from *R. canina* by their persistent, upright (not reflexed) sepals and wider disc orifice (1/3 of disc width rather than 1/5). The sunny side of the twig is wine red.

Rosa caesia subsp. **caesia** *Hairy Dog-rose* n 6
Rosa coriifolia Fr.

Hedges, scrub and wood borders, very local in the Northern Loop. Stems green and leaflets rugose, not glaucous, densely hairy beneath.

West Berks: Abingdon (**OXF**) [49], Boars Hill (**OXF**) [40]

Rosa caesia subsp. **glauca** (Nyman) G.G. Graham and Primavesi *Glaucous Dog-rose* n 6
Rosa afzeliana Fr. nom. illeg.
Rosa vosagiaca N.H.F. Desp.
Rosa glauca Vill. ex Loisel, non Pourr.

Stems red and leaves not (or little) rugose, distinctly glaucous, leaflets folded down at the midrib, hairless beneath.

East Berks: a single record from Hurst (**OXF**) [77] in 1913.

West Berks: Wantage (**OXF**) [48], Tubney (**BM**) [49], Wootton (**OXF**) [40], Compton (**BM**) [57], Burghfield (**BM**) [66], between Streatley and Pangbourne (**BM**) [67]

Rosa x dumalis Bechst. = **R. caesia x R. canina** n 6

Rosa x subcanina (H. Christ) Dalla Torre & Sarnth
Rosa x subcollina (H. Christ) Dalla Torre & Sarnth
Rosa canina L. x R. afzeliana Fries

One of the most frequent of the hybrid roses. Told from *Rosa canina* by the large elongated hips (24mm x 14mm) and the broad dome of hairy stigmas, and from *R. caesia* by the small orifice (1/5 rather than 1/3 of the width of the disc) and the reflexed (not

upright) sepals which fall before the hip is ripe. Like *R. caesia*, the young twigs are wine-red on the sunlit side. The subspecies of *R. caesia* involved in the hybrid (see above) is determined on the basis of leaf hairiness.

Silwood Park: very local and rare; three bushes in all, one with hairy leaves, and two with glabrous leaves. A single plant at Pound Hill, in the fence between the Cultivation Timing Experiment and Gravel Pit [9388 6934] with glabrous leaves (1979-2004). A single plant in the fence of the Horse Pasture opposite The Cedars on Church Lane Footpath [942 6869] also with glabrous leaves (1979-2004). A single plant amongst Gorse and regenerating Oaks at the northern end of Nash's Slope [9447 6918] has dark green, more rugose leaves that are hairy on both surfaces, with a densely hairy midrib, beneath, suggestive of *R. caesia* subsp. *caesia* as the other parent. But as Graham and Primavesi (1993) say, without a hint of irony, "such determinations are somewhat conjectural".

East Berks: Whiteknights Park [738714] (**RNG**) in 1981, and since 1999 at Sonning, Cookham and Windsor Great Park

West Berks: Newbury [46] and Thatcham [56] in October 2002; certainly under-recorded

Rosa canina group **Dumales**

East Berks: by the lock at Sonning in 1996, Waltham (**OXF**), Cookham in 1994

West Berks: Greenham Common (**OXF**) [46] in 1930, Charlton (**OXF**) [48], Marcham (**OXF**) [49], Appleton (**OXF**) [40] in 1933, Brimpton (**OXF**) [56], Abingdon [59]

Rosa canina group **Lutetianae**

Ascot: a single plant on the Sunninghill Park side of Watersplash Lane [945698] (1979-2004), with slender, urceolate hips (20mm x 9mm) and very narrow, pointed leaflets (the first lateral leaflet 34mm x 13mm) and stipules lined with short-stalked, red glandular hairs.

West Berks: East Hanney (**OXF**) [4290] in 1992. Denchworth (**OXF**) [3692] and Shillingford [59], both in 1994. The record from Andersey Island at Abingdon is on the Oxfordshire bank of the R. Thames. Drayton [4694] in 2001

Rosa canina group **Pubescentes**

Silwood Park: a single sprawling plant on the Dam, west of the Outflow Sluice [9415 6915] on Silwood Lake (1979-2004).

East Berks: Riseley (**OXF**)

West Berks: Kintbury (**OXF**) [36] in 1891, Greenham (**OXF**) [46], Tubney (**BM**) [49] in 1919, Boars Hill (**BM**) [40] in 1881, Radley (**OXF**) [59] in 1894

Rosa canina group **Transitoriae**

East Berks: Binfield (**BM**) in 1929, Maidenhead (**OXF**) in 1819, Cookham Lock in 1994

West Berks: Wytham (**OXF**) and Wootton (**OXF**) [40] in 1894, Appleton (**OXF**) [40] in 1933, Brimpton (**OXF**) [56] in 1910, Compton (**BM**) [57] in 1887, Abingdon and Shillingford [59] both in 1994. Drayton [4692], [4694], [4892] and [4894] in 2001.

Rosa obtusifolia Desv. *Round-leaved Dog-rose*

n 6

Hedges and bushy places, rare and declining. Known by the small orifice to the hip (the orifice makes up less than 1/5 of the total width of the disc), by its strongly hooked, rather squat prickles, and by its short pedicels (less than 15mm). The leaflets are often overlapping.

East Berks: Reading (**OXF**) in 1893, Riseley (**OXF**) in 1889, Earley (1893), Bearwood, Windsor, Maidenhead, Stubbing's Heath, Bisham, Hurst, Wokingham, Blackwater. Not seen by Bowen. Atlas 2000: no records

West Berks: Radcot [288996], Buckland Warren [3496], Beedon [47], Chieveley [4773], East Hanney (**OXF**) [4290], Cumnor (**BM**), Boars Hill (**OXF**) and Wytham (**OXF**) [40]. Atlas 2000: [49]

Rosa x dumetorum Thuill. = **R. obtusifolia** x **R. canina**

West Berks: Beedon Wood (**BM**) and Chieveley (**OXF**) both [47] in 1887, Cumnor (**OXF**) [40], Boars Hill (**OXF**) in 1942, Compton (**OXF**) [57], Andersey Island, Abingdon and Shillingford [59] in 1994, East Hanney (**OXF**) [4290] in 1992.

Rosa tomentosa Sm. *Harsh Downy-rose*

n 6

Rosa scabriuscula auct., non Smith

Hedges, thickets and open woods. Widely distributed but uncommon, and seen recently only from calcareous soils. Note that Druce's records in **OXF** are confused with *R. sherardii*. Known by its small, almost spherical hips (1-2cm) and glandular pedicels, distinguished from *R. obtusifolia* by its longer, less hooked prickles and longer pedicels (more than 15mm). *R. sherardii* has a much wider orifice to the hip (1/3 to 1/2 of the width of the disc) and has woolly styles.

East Berks: Bearwood, Waltham (1893) (**OXF**), the Berkshire part of Stratfield Saye, Stubbing's Heath, Hurst. Sindlesham (**OXF**) in 1982. Atlas 2000: no records.

West Berks: Langley Farm Beedon (**BM**) in 1887, Snelsmore [47], Moulsoford [48], Frilford and Cothill [49], Wittenham [59] (all in **OXF** pre-1897). Nutwood [38], Ashridge Wood (**OXF**) [5078], Fair Mile [5583], Sulham [67] (**RDG**) in 1914. Atlas 2000: [57], [67]

Rosa sherardii Davies *Sherard's Downy-rose*
Rosa tomentosa Smith subsp. sherardii (Davies) A. Pedersen

n 6

Hedges and scrub; local and rare in the north. Druce had this mixed up with *R. tomentosa* (above). Told by its woolly styles, wide orifice (1/3 or more of the total width of the disc), and at least some of its prickles curved.

East Berks: no records

West Berks: Pucketty Farm [39], Frilford (**OXF**), Tubney Wood (**BM** and **OXF**) and Cothill [49], Boars Hill (**BM** and **OXF**) and Cumnor (**OXF**) [40], Northcourt, Abingdon [59]. Most recently at Boxford (**OXF**) in 1987.

Rosa rubiginosa L. *Sweet-briar*

n 6

Hedges, scrub and woody places; not common but widely scattered, mostly on the chalk. Told in the field by the abundant stalked glands beneath the leaves which give an apple scent when crushed. The pedicels bear abundant long-stalked glandular hairs and the sepals are persistent on the ripe hips.

Silwood Park: a single plant on the grassy bank above the Farm Road below the Met Tower [9390 6925] from 1979-2004. This is a distinctive plant with tall, straight, upright, pale-green shoots, and small hips bearing horizontally spreading sepals at maturity. The leaves are densely glandular on the margins and lamina, with sparse non-glandular hairs beneath.

East Berks: rare and scattered. Park Place, Stubbing's Heath, Ashley Hill, Maidenhead, Wargrave, Loddon Bridge, Windsor Great Park, Bearwood, Bisham Wood, Finchampstead, Wellington College (**RNG**) in 1917. Tilehurst (**LAN**), Bisham, Trilakes, Maidenhead Thicket. <1% (1km²). Atlas 2000: [76], [78], [96]

West Berks: occasional on the chalk and the oolitic limestone, rare elsewhere. Walbury Hill [36], Whitehorse Hill [38], Chilton and Ardington [48], Dry Sandford and Abingdon [49], Wytham, Swinford, Foxcombe Hill, Jarn Mound, Cumnor Hill and Boars Hill [40], Brimpton (**OXF** and **E**) [56], Hermitage (**OXF**) and Hampstead Norreys [57], Lowbury Hill, Lardon Hill (**BM**), Streatley (**RDG**) and Blewbury [58], Little Wittenham and Sulhamstead [66], Sulham, Pangbourne, Tilehurst and Purley [67].

Rosa x bigeneris Duffort ex Rouy = **R. micrantha** x **R. rubiginosa**

Rosa x dubia Wolley-Dod, non Wibel

West Berks: collected at Aston Tirrold [58] in 1962 (det. R. Melville).

Rosa micrantha Borrer ex Sm. *Small-flowered Sweet-briar*
Rosa elliptica auct., non Tausch

n 6

Hedges and bushy places; thinly scattered through the county. Under-recorded. Told from *R. rubiginosa* by the arching (not erect) stems, and non-persistent sepals fallen from the ripe hips.

East Berks: Maidenhead (**OXF**), Cookham, Windsor Forest, Wokingham, Finchampstead (**OXF**), Swallowfield, Wargrave, Ascot (**OXF**) (all pre-1897). Dry scrubland; rare and decreasing. Not seen by Bowen from our area.

West Berks: Boxford, Woodspen (**OXF**) in 1987, Drayton (**OXF**) [4694] and Frilford golf course [49] in 1978, Cumnor (**OXF**) [40], Brimpton Common (**OXF**) [56], Compton [57], Streatley Hill (**BM** and **OXF**) [58]

Rosa agrestis Savi *Small-leaved Sweet-briar*
Rosa elliptica auct., non Tausch

n 6 †

Hedges and scrub on calcareous soils; once a great rarity, now extinct. Told from *R. rubiginosa* and *R. micrantha* (the other roses with abundant sticky glands on the leaves) by its glabrous pedicels and cuneate (not rounded) leaf bases.

East Berks: not reported by Druce or Bowen.

West Berks: very rare, but long extinct. Boars Hill and Wytham [40] (both 1887 in **BM** and **OXF**).

Prunus x fruticans Weihe = **P. spinosa** x **P. domestica**

East Berks: in hedges to the east of Wokingham [829682] in August 2003; det. A.R.G. Mundell

Prunus domestica subsp. **insititia** (L.) Bonnier and Layens *Bullace or Damson*
Prunus insititia L.

This has densely pubescent and spiny twigs, small fruits and a less flattened stone.

East Berks: in a hedge at Reading gas works in 1979 [773737].

West Berks: Wytham [40], Bucklebury Upper Common [5369], Lower Basildon (**LAN**) [67]

Prunus cerasus L. *Dwarf Cherry* ○ m 4

Hedges and wood margins; locally common on the chalk but always much less common than *P. avium*. Told from *P. avium* by features of the hypanthium; there are many errors in the old records. *P. cerasus* has hypanthium cup- (not bowl-) shaped, not constricted at opening, and fewer flowers per umbel (2-4 rather than 2-6); some of the bud scales beneath the flowers are green and leaf-like.

The leaves are rounder, glossier, and *lack* the 2 red glands at the top of the petiole.

Ascot: no records

East Berks: Rare and scattered. Wellington College, Park Place, Sandford Mill on the banks of the Loddon, Ashley Hill, Quarry Wood, Hurley, Bisham, Bowsey Hill. Bracknell, Woodley, Bisham Wood, Wellington College. Recently from Old Windsor and The Priory. <1% (1km²). Atlas 2000: [77], [86], [87], [88], [97]

West Berks: uncommon in the Northern Loop and along the Kennet valley; absent elsewhere. Kirby House and Inkpen [36], Coldridge Copse [37], Snelsmore Common [47], Marcham (**OXF**) [49], Wootton and Cumnor Hill (**OXF**) [40], Cakeball Wood on the northern edge of Greenham Common in May 2001 and Fence Wood [56], Trash Green [66], Theale and Pangbourne (**BM**) [67]. Atlas 2000: [36], [37], [47], [40], [57]

Prunus padus L. *Bird Cherry* ● m 4

Not native in Berkshire, and nowhere properly naturalised. Occasionally planted in woodland and shrubberies, and rarely in hedgerows. Often mistaken for *P. serotina* which also has flowers in elongate racemes, but *P. padus* has larger petals (> 5mm vs. < 5mm) and the sepals fall before the fruit is ripe (they persist in *P. serotina*).

Silwood Park: scattered trees, planted in various places (e.g. behind the Japanese Garden and on Garden Wood Bank). Used by the insect behaviour people for rearing Bird-Cherry/Oat aphids. Flowers well before the *P. serotina*.

Ascot: very rare. A single individual in a hedge in South Ascot, between Oliver Road and the railway bridge. Rare in the pine woodland at Englemere, apparently bird-sown rather than planted.

East Berks: planted in the landscaping at Tesco's Superstore at Martin's Heron station. Flowering 17 April 2004.

Oemleria cerasiformis (Torr. & A. Gray ex Hook. & Arn.) J.W. Landon *Osoberry* ● n 3
Osmaronia cerasiformis (Torrey & A. Gray ex Hook. & Arn.) E. Greene

A very early spring (March) flowering shrub, forming dense thickets, but not spreading far beyond the original point of planting.

East Berks: Cookham Lock [9085] on a wooded island, not obviously planted; 1999.

Cydonia oblonga Mill. *Quince* ● m 5
Pyrus cydonia L.

Silwood Park: an ancient tree overhangs the inflow stream just outside the Walled Garden.

East Berks: not in Druce. Reading (**RNG**) [77] in 1831. Four trees in a pit near White Waltham Church (1966). Atlas 2000: [97]

West Berks: Padworth Church [66], 4 trees in an old orchard in 1987.

Pyrus pyraeaster (L.) Burgsd. *Wild Pear* ● mm 4

Hedges, etc. Genuine Wild Pear is very rare. Distributions of the 3 pear taxa have not been worked out in Berkshire. The records under *P. communis* are for the aggregate, including planted trees and trees regenerated from seeds in discarded fruit.

Pyrus pyraeaster subsp. **pyraeaster** L. has more or less glabrous leaves and globose fruits

Silwood Park: a good collection of four wild pears was planted in the woodland behind Southwood Hall by Ted Green in 1984. The plants came from Dinton Pastures. The fruits are small and spherical, the calyx is half the width of the base of the fruit, and the straight stalk is as long as the fruit. There was a spectacular fruit crop in September 2004 which highlighted the variation in fruit size and shape from one tree to another. The biggest tree (the south-western of the four) had the classic tiny round fruits on long, cherry-like stalks; these ranged from 25mm to 30mm in diameter. The two northern trees has round fruits 30-40mm diameter, but the south-eastern tree, closest to the track, had larger, more pear-shaped fruits (40-50mm diameter).

East Berks: Dinton Pastures [7772] (1983-2004).

[**Pyrus pyraeaster** subsp. **achras** (Wallr.) Terpo] has pubescent leaves and obconical to obovoid fruits. No Berkshire records yet.

Pyrus communis L. *Pear*

● mm 4

Only distinguishable from *P. pyraeaster* in fruit: in *P. communis* the fruits are 'proper pears' 6cm or more (pear-shaped, rather than small (c.25mm) and round, as in *P. pyraeaster*). The leaves are attacked by slugworms, which are larvae of the sawfly *Caliroa cerasi*.

Silwood Park: an excellent specimen in the Arboretum below William Penney on Garrison Ridge. A few plants apparently naturalized in the graveyard hedge at Ashurst. A large tree in the vacant lot off London Road opposite Ashurst Four Acre Field.

East Berks: a large tree in Park Place between Ivy Lodge and the Boat House, with rugged bark and somewhat thorny branches. One tree near Old Windsor lock. Holyport. Hedges on nutrient rich soils, as single trees. Whiteknights Park, Woodley, Wokingham, Bracknell, White Waltham. Scattered in the centre of the region, north of 65 and south of 80 on the clay. Recently at Riseley Farm, Great Wood, White Waltham, Kenney's Farm, Foliejon Park, waste ground near the R. Thames in Maidenhead. 1% (1km²). Atlas 2000: all except [88]

West Berks: almost confined to the region east of 50, with outliers at Coxwell and Faringdon [29], Denchworth [39] and East Hanney [49]. Churn and Blewbury [58], Mortimer [66], Tilehurst [67] Atlas 2000: [29], [37], [39], [49], [56], [57], [58], [66], [67]

Malus x purpurea (E. Barbier) Rehder *Purple Crab* = **M. niedzwetzkvana** x **M. atrosanguinea**

Malus floribunda Siebold ex Van Houtte 'Purpurea' Barbier

Common in towns and villages as a feature tree in lawns, etc. Sometimes in wild looking hedges, but always planted.

East Berks: Fifield

West Berks: Stanford in the Vale

Malus hupehensis (Pampan.) Rehder *Hupeh Crab*

● m 5

A beautiful tree, with huge white flowers (4cm dia.) that cover the entire canopy in early May. In autumn, the canopy is festooned with tiny red fruits (1cm dia.) on long peduncles (4cm), that look much more like cherries than apples. Flowering in the first week of May in most years, but on 20 April in the early spring of 2002. The calyx lobes are hairy (hairless in *M. baccata*) and the young twigs are densely hairy. The leaves are large (9cm x 5cm), but less than 2 times as long as wide (more than 2 times as long in *M. baccata*).

Silwood Park: bird-sown in three places, each a long way from houses and surrounded by similar aged natural regeneration (probably dating from c.1975). Below Garrison Ridge on the track below William Penney facing Silwood Bottom. On the edge of Pound Hill Wood, beyond the Met Tower on the track facing the Disturbance Experiment. In the depths of Cascade Marsh, growing amongst *Lysichiton americanus* and *Carex pendula*; clearly bird-sown, right in the middle of the most inaccessible part of the swamp. Its enormous flowers make it conspicuous in early May, but it becomes completely invisible once the alder canopy has closed.

East Berks: in a plantation in Leighton Park [7371] in 1986

Malus baccata (L.) Borkh. *Siberian Crab*

● m 5

Another cherry-fruited apple (like *M. hupehensis*) but not so frequently self-sown. It has relatively more elongate leaves that are glossy on the upper side, smaller flowers (3.5cm) and hairless calyx lobes.

East Berks: in the graveyard at Clewer [9577], probably planted (1997).

Sorbus domestica L. *Service-tree*

● mm 5

Possibly native in Britain, but not a component of any natural habitats in Berkshire. Very rare.

West Berks: in a hedge at Kingston Bagpuize [49] in 1966. One tree about 60 years old plus a sapling.

Sorbus torminalis (L.) Crantz *Wild Service-tree* mm 5
Crataegus torminalis L.
Pyrus torminalis (L.) Ehrh.

A good indicator of ancient woodland on clay; local and rare. Oak woods and hedges in small quantity, but absent from both the chalk and the acid sands.

NVC: W 5,8

Silwood Park: in the woodland garden behind Southwood Halls with other native trees like *Pyrus pyraster* and *Frangula alnus*. Planted there by Ted Green from local seed in 1985. The plants in the hornbeam clearing of Garden Wood were destroyed during the construction of the Science Park in 1987. Other planted individuals at Heronsbrook and Buckhurst Road.

East Berks: commonest in [87] and [88]. Not infrequent in beech woods at Park Place, Rose Hill Wood. Whiteknights Park (seedlings), Farley Hill, Whiteknights Park, West Court, Winnersh, Park Place, Waltham St Lawrence, Ashley Hill, St Leonard's. Recently at Simon's Lane [7868], Binfield [856713], Surrells Wood [822738], Lock's House [8367], Ham Bridge [8267], Wykery Copse [851686], 3 trees in Big Wood [8376 6820], Great Wood [8576], by Hawthorn Lane in Nuptown [8873], Great Thrift Wood [8778], Hazelwood Copse [8672], Wokingham [8368], Crimphill Old Windsor [9874], Gardeners Copse [8473], Warren Copse [8374], Ashley Hill [830803]. 4% (1km²). Atlas 2000: all squares

West Berks: restricted entirely to the extreme south-east, centred on Theale [6570] with an outlier at Bagley Wood [50]. Absent or rare to the west of 50. Red Hill [57], Hookend Farm [57], Silchester Common [66], Bradfield (**LAN**) [67], Mortimer [66], Burghfield [66], Tilehurst (**RNG**) [67], Sulham Wood [67]. Atlas 2000: [39], [56], [57], [50], [66], [67],

Mespilus germanica L. *Medlar* • m 5

Hedges, very rare. Mostly planted in orchards (as *Pyrus germanica*). Reported extinct by Bowen.

West Berks: recorded by J. Lousley in Hampstead Norreys [57] and Purley [67] in 1839. At Arborfield Court [76] in 1975 and Theale [67] in 1987, both clearly planted.

X Crataemespilus grandiflora (Sm.) E.G. Camus *Haw-medlar* • m 5
Mespilus x grandiflora Smith
X Crataegomespilus grandiflora (Smith) Bean

East Berks: in a hedge in Warfield Park [870715] in 1966

Crataegus x media Bechst. = **C. monogyna x C. laevigata**
Crataegus x macrocarpa auct., non Hegetschw.

East Berks: Whiteknights Wilderness in 1986

West Berks: Wytham [40] in 1918, Radley [59] in 1918, Theale (**LAN**) [67] in 1961

Crataegus laevigata (Poir.) DC. *Midland Hawthorn* m 5
Mespilus laevigata Poiret
Crataegus oxyacanthoides Thuill.

Hedges, woods, thickets, parks. Druce said "plentifully in all the districts" but Bowen thought it "in very small quantity in hedges". It is not clear whether Druce was exaggerating, or whether the plant has declined dramatically. In any case, it is extremely uncommon now. It usually has 2 or 3 styles and fruits with 2 or 3 stones, and leaves with upswept, less divided bases than hawthorn (3 lobes rather than 5).

NVC: W 5,8,10,21

Ascot: no recent records

East Berks: rare and scattered, recently at Hall Farm [7468], Arborfield, Ruscombe, Ashley Hill, Waltham, Bray, Stubbing's Heath, Windsor. Bearwood, Ascot, Whiteknights Park, Windsor Great Park. 1% (1km²). Atlas 2000: [76], [77], [87], [88], [96], [97]

West Berks: essentially confined to the Thames valley and common only in the Northern Loop. Faringdon Park [29], Kintbury [36], Stanford-in-the-Vale and Pucketty Farm [39], Priors Court [47], Harwell [48], Steventon Wood [49], Eaton, Appleton Lower Common, Long Copse Cumnor, Filchampstead, Wytham Wood and Youlbury [40], Lowbury and Streatley [58], Didcot, Shillingford and Little Wittenham Wood [59], Bagley Wood [50], Basildon [67]. Atlas 2000: all except [36], [46], [47], [56], [66], [68]

FABACEAE

Trigonella foenum-graecum L. *Fenugreek*

● th 6

Used by organic growers as a winter-grown green manure and weed suppressant which is dug into the soil in the spring. A rare but increasing garden escape.

West Berks: Bird-seed alien at Didcot [5190] in 1897 and grown as a crop plant at Bradfield [589722] in 1988 (RNG).

Scorpiurus muricatus L. *Caterpillar-plant*

● th 6

West Berks: As a garden weed at 51 Rectory Close Newbury [4766] in 1971.

Scorpiurus vermiculatus L.

● th 6

West Berks: A bird-seed alien in a garden in Cholsey [5886] in 1962 (det. C.J. Cadbury).

Colutea arborescens L. *Bladder-senna*

● m 5

Railway embankments and rubbish tips; rare. Known by its transparent, inflated, bladder-like fruits.

Silwood Park: the old shrub by the door into the Table Tennis room sets good seeds each year, but has yet to produce any seedlings.

East Berks: not in Druce. Reading (1959), Maidenhead tip (1960), Warfield (1963), Battle Farm tip (1965), Smallmead tip (1972). Recently on waste ground at Whitley [7270] in 2003.

West Berks: a single record from a grass track near Knighton Bushes [301822] in 1960.

Arachis hypogaea L. *Ground-nut*

● th 9

Known by its leaves which have two pairs of large leaflets, and no tendrils.

Ascot: local and rare. A single plant on 16 September 2003, on bare ground on the demolition site in Sunninghill [939683] where the long-empty houses of Matthews Court had stood until the site was bulldozed in early 2003.

East Berks: rare in a maize crop, east of Wokingham [828684] in August 2003 (herb. A.R.G. Mundell)

Astragalus danicus Retz. *Purple Milk-vetch*

hp 5 †

Chalk grassland; always very rare in Berkshire, now extinct.

West Berks: between West Ilsley and Catmore Wood in 1894 and at Gore Hill [490835] in 1931 (OXF).

Astragalus glycyphyllos L. *Wild Liquorice*

hp 7 ↓

By roadsides and under hedges, calcareous fields and grasslands, thickets and scrub on calcareous soil; local in the drier parts of the county and usually in small quantity.

East Berks: between Twyford and Reading (1805), Woodley (1962), Sonning (1800 and 1963), Wargrave. Bisham Wood (1962). Atlas 2000: [77], [88]

West Berks: local and rare. Pusey [35], Bagnor [47], Marcham [49], Tubney Wood, Wytham Wood, Rockley Copse and Cumnor [40], Cholsey and Streatley [58], North Farm [5892] in 1987, Bagley Wood in 1981 and South Hinksey in 1974 [50], Chilswell path [501037] in 2001, Sulham Woods (LAN) [67]. Atlas 2000: [49], [40], [58], [59], [50], [67]

Glycyrrhiza echinata L. *German Liquorice*

● th 6 †

West Berks: casual on rubbish heaps on waste ground at Grandpont [50] pre-1897.

Hedysarum coronarium L. *Italian Sainfoin*

● th 6

West Berks: as a garden weed at Pyle Hill, Newbury [4766] in 1978 (RNG).

Anthyllis vulneraria subsp. **polyphylla** (DC.) Nyman

hs 6

Anthyllis vulneraria L. var. *polyphylla* DC.

Calyx without the red tip of subspecies *vulneraria*, lower part of the stem with spreading (not appressed or semi-appressed).

East Berks: uncommon in wildflower mixtures used in landscaping new road verges. Bracknell in 1999.

Anthyllis vulneraria subsp. **carpatica** (Pant.) Nyman var. **pseudovulneraria** (Sagorski) Cullen
Anthyllis carpatica Pant.

Much larger calyx than the other 2 subspecies (5-7mm wide rather than 2-4mm), and a much larger terminal leaflet relative to the lateral leaflets.

East Berks: sown in wildflower mixtures and much used in landscaping new road verges, as in Reading and Bracknell.

Lotus glaber Mill. *Narrow-leaved Bird's-foot-trefoil* hp 6 ↓
Lotus tenuis Waldst. & Kit. ex Willd.
Lotus corniculatus L. subsp. *tenuis* (Waldst. & Kit.) Syme

Roadsides, dry grassy places and waste ground; very local and rather rare. An uncommon plant of set-aside land, but long-persistent in the seed bank.

Silwood Park: first recorded on 28 August 2004; two widely separated plants inside the rabbit fence at Ashurst Lysimeters from topsoil imported in August 2003.

East Berks: on a heath near Crowthorne, Starve All Farm, Wellington College; Druce was "inclined to think that the plant has been introduced with grass seeds in all these localities". Reading (1918), Remenham (1951), Emmbrook brickyard (1965). Excellent extensive population in Bracknell (thousands of plants) in 1999 on derelict land destined for industrial development, north of the A329 dual carriageway below Hewlett Packard [847688]. Site destroyed in early 2000 for a car park during the construction of Dell Computers. By the northern relief road at Quelm Park Bracknell, from a sown wildflower mix, in November 2001. A single patch, 50cm diameter, in mown turf at the rear of 3M by the Cain Road Roundabout [8469] in September 2004. <1% (1km²). Atlas 2000: [77], [86], [87]

West Berks: occasional in the Thames Valley, absent or rare elsewhere. Shrivensham [28], Buscot Park [29], Hungerford [36], Buckland [39], by the path from West Hanney to Denchworth [396922], Atomic Energy Research Establishment at Harwell [48], Frilford Heath and Abingdon [49], Lower Whitley Farm, Long Leys Farm west of Cumnor, Boar's Hill, Long Leys and Bessels Leigh [40], Clay Hill [57], Lollingdon Hill [58], Didcot [59], Nunhide Lane and Tilehurst [67]. Atlas 2000: [29], [39], [48], [49], [40], [58], [59], [67]

Tetragonolobus maritimus (L.) Roth *Dragon's-teeth* ● hs 6 †
Lotus maritimus L.

A local speciality of chalk grassland, presumed to be an introduction. Flowers yellow.

East Berks: not in Druce. Remenham (1913 and 1955, **RNG**) behind Leander [767835] in 1948 and 1961 (**OXF**).

West Berks: Basildon in 1913 (**OXF**), 1929 (**RNG**) and 1961 (near "Woods Farm", **RNG**), which may well be the same site as Grims Ditch, Bennet's Wood, Streatley [595795] in 1977. There is a Wood Farm at [584794]. I have not been able to find the plant anywhere near Streatley, despite repeated searches.

Vicia sylvatica L. *Wood Vetch* hp 6

Wood margins on calcareous soils; considered to be extinct by Bowen.

East Berks: no records

West Berks: older (pre-1897) records from Welford Wood and Ashridge Copse [47], Tubney Wood [49], Appleton Common and the upper parts of Marley Wood (from 1859 up to 1892) [40] and Rowcroft Wood [5570]. More recent records from Inkpen [3560] in 1966, Great Plain Wytham in the 1950s, Cake Wood [303689] in 1970 and Hungerford [3068] in 1971. Atlas 2000: [36], [40]

Vicia villosa Roth *Fodder Vetch* ● hp 6
Vicia dasycarpa auct., ? an Ten.
Vicia varia Host
Vicia villosa Roth subsp. *varia* (Host) Corbière

A rarity of dry, sandy soils in the Northern Loop.

East Berks: not in Druce. A rare alien of bare waste ground. Whiteknights Park (1967). Atlas 2000: no records.

West Berks: old records from Boars Hill [40] in 1902 (**OXF**) and Cothill [4595] in 1910 (**OXF**). In an “arable orchard” at Kingston Bagpuize [4098] in 1966-72. Botley Row [4806] in 1965 (**OXF**). In a garden on Station Road, Didcot [5190] from 1976-77 (**OXF**), and on a grassy field margin by the A338 to Tubney [443977] in 1994. On Frilford Heath [4496] in June 1996 (**OXF**) and [447981] in 2001. Atlas 2000: [49]

Vicia parviflora Cav. *Slender Tare*

th 6

Vicia laxiflora Brot., nom. illegit.

Vicia gracilis Lois., non Sol. ex Lowe

Vicia tenuissima auct., non (M. Bieb.) Schinz and Thell.

Grassy ground, waysides that are wet in winter but dry in summer, woodland rides and dry grassland; very local and sporadic. Separated from *V. tetrasperma* on the size of the hilum (little longer than wide in *parviflora*, more than 2 times as long as wide in *tetrasperma*); also has more flowers (1 to 5 per peduncle) and more seeds per pod (4 to 8).

East Berks: near Loddon Bridge (as *V. gemella* var *tenuissima*). Windsor Forest [9070] in 1964. Atlas 2000: no records

West Berks: Wootton (**OXF**), Upper Seeds at Wytham (still there in 2002-04), Eynsham Road (**OXF**) and Boars Hill (**OXF**) in 1897 [40], Mortimer [66], Bradfield [67] pre-1897. Recent records from Blewburton Hill [5486] in 1962, from a gravel pit in Milton (**OXF**) [492922] in 1977, Aston Upton [545835] in 1984 and Didcot Power Station [5090] in 1987. Atlas 2000: [40], [59]

Vicia sativa subsp. **sativa**

o th 5

Uncommon casual of disturbed habitats, with hairy pods, constricted between the seeds. Not separated by Druce or Bowen, this is the least common of the 3 subspecies. It used to be a major component of the crop known as “Vetches and Tares” that was widely grown until the 1950s.

East Berks: local, sporadic and rare, California Country Park, West Hanworth, Martins Heron, Charity Wood, Whitelocks Farm, Mount Skippet, Maidenhead, Brook Farm, Bray, on the Cavalry Exercise Ground in Windsor Great Park. 2% (1km²). Atlas 2000: all except [78]

West Berks: on soil heaps on Greenham Common [46] during operations to dig up and remove the old runway in 1999. Frequent on open waste ground used to store topsoil at Tadley Common [605625] on 12 June 2001. Atlas 2000: all except [28], [36], [46], [67], [68], [69]

Vicia lathyroides L. *Spring Vetch*

th 5 ↓

Short, dry grassland and sandy places; very local and rare though possibly overlooked. Leaves typically without tendrils; the flowers are small (6-9mm) and solitary. It can be confused with small *V. sativa* subsp *nigra* on these characters, so it is important to check that the seeds are tuberculate (*V. sativa* has smooth seeds).

East Berks: Sonning cutting (1897), dry heathy ground near Bracknell (1897), Twyford. Not seen by Bowen. There is an unlocalized 1950+ record from [97]. Atlas 2000: no records

West Berks: Longworth pit [39] in 1964, Frilford Heath [4498] in 1963, 1971, 1996-2004, Cothill [49] in 1953, Hurst Hill [40] in 1954, Tubney Wood [40] in 1965, Foxcombe Hill [4500] in 1953, gravelly soil in short heathy ground on Greenham Common [5164] in 1999-2002. Atlas 2000: [49], [40], [56]

Lathyrus linifolius (Reichard) Bassler *Bitter-vetch*

hp 5 ↓

Orobis linifolius Reichard

Lathyrus tuberosus auct., non L.

Orobis tuberosus L.

Lathyrus montanus Bernh.

Open woods, coppices, and bushy heaths and infertile grasslands on acid soils; occasional but decreasing. Its dull claret and muddy blue flowers are unmistakable.

NVC: MG 5; W 10

Ascot: uncommon on rides in old oak woodland. Ascot, Swinley, and Tower Court. In unfertilized acid grasslands by roadsides in Windsor Great Park, as at the crossroads near Poets Lawn [960722] in 2002.

East Berks: first record: “*Orobis tuberosus*, a variety with linear leaves, which is found in Windsor Forest” (1809; still there in 2000 on High Standing Hill). Finchampstead Wood, Bulmarsh Park, Billingbear Park, rather common at Park Place, woods near Marlow, Wokingham, Farley Hill, Riseley, Bracknell, Quarry Wood, Bowsey Hill, Ashley Hill, Stubbing’s Heath, Pinkneys Green, Bisham Wood, Warren Row. Bowen knew it from Binfield, Jealott’s Hill (1962), Maidenhead Thicket, Quarry Wood, Tower Hill, Winkfield Plain. Rare in Windsor Forest, and extinct at most of its southern stations. Now at Arborfield Garrison, North Bracknell, Swinley Park, New Lodge, Forbes Fields, Holliday Plain, High Standing Hill, and on the steep slopes below Windsor Castle. 1% (1km²). Atlas 2000: [76], [77], [86], [87], [88], [97]

West Berks: virtually restricted to the heathy tracts of the Kennet valley. Extinct in most of its northern stations. Inkpen and Kintbury [36], Enborne Lodge [46], Cold Ash, Corbus Wood and Brimpton [56], Oare Wood, Fence Wood, Park Wood Hampstead Norreys, Yattendon and Bucklebury [57], Burghfield and Silchester Common [66], Sulham, Bradfield and Tilehurst [67]. Atlas 2000: [36], [37], [56], [57], [66], [67]

Lathyrus sylvestris L. *Narrow-leaved Everlasting-pea* hp 6 ↓

Woods, thickets and hedges. Very local and rare.

East Berks: "Crazy Hill" in 1897. Not seen by Bowen. Atlas 2000: no records.

West Berks: Letcombe [38], Newbury [46], Ashridge Wood [47], Tubney Wood [49], Whitley Copse and Wytham [40], Sutton Courtenay [59], South Hinksey [50]. Atlas 2000: [46], [40], [57], [59], [50]

Lathyrus nissolia L. *Grass Vetchling* th 5

A delightful species of grassland, quarries and banks, usually on soil that has been disturbed. The flowers are a startling brick red, and are held singly. Non-flowering plants are virtually invisible amongst the grass.

Ascot: frequent on Sunningwell Bog in late May (sometimes even locally abundant) in the fen-meadow to the north of the railway, west of St George's Lane [926683] from 1970-2004. Locally common in grasslands on either side of the A332 road through Windsor Great Park just south of Queen Anne's Gate, and in the grasslands around the Copper Horse (1990-99). Not in Silwood Park.

East Berks: not in Druce. Mostly in the Thames Valley; local and often sporadic. Wargrave, Hall Place Farm near Hurley, Bracknell, on the new embankments of the flyover at Coppid Beech roundabout [837688], Bray Wick, Cookham Dean, Maidenhead Thicket, Windsor Great Park. Recently at Loddon Bridge, White Swan Lake, Dinton Pastures, in the long grass at the edge of the airfield at White Waltham, Pinkneys Green, Woodlands Park, Paddock Wood, Chawridge Bank, Fifield, superb in unfertilised hay meadows in Foliejon Park in 1999, ditch banks at Stroud Farm on reclaimed landfill [903777], Bray, in the grasslands between Ascot Road and the M4 in north Holyport, The Village in Windsor Great Park, Stag Meadow, Clayhill Farm. 5% (1km²). Atlas 2000: all except [76]

West Berks: scattered in the Thames and Kennet valleys; rare elsewhere. Inkpen and Wallingtons [36], Poughly [37], Pucketty Farm [39], East Ilsley [48], Grove, Black Horse Field [468979], Cothill pit and Abingdon [49], Rockley Copse pit and Cumnor Hill [40], Ashampstead [57], Didcot and Sutton Courtenay [59], Burghfield and Grazeley [66], Tilehurst [67]. Extraordinarily abundant in June 2001 on Tadley Common [66] on bare ground that had been used for storing topsoil. There was a string of patches, each about 10m x 2m spreading over several hundred metres, in which it was locally dominant, and for considerable stretches, the only plant. Atlas 2000: all except [38], [47], [56], [50], [68], [69]

Lathyrus aphaca L. *Yellow Vetchling* th 6 ↓

Calcareous grassland, hedge-banks and waste ground; rare and often casual.

East Berks: near Sonning (1892). Suttons nurseries (**RDG**) in 1912, Reading allotments (1890), Windsor Great Park (1959). Atlas 2000: no records.

West Berks: Greenham and Newbury [46] and Burghfield (pre-1897), Kennington [50] in 1918, Abingdon [49] in 1928, Moulsoford (**LAN**) [58] in 1956, in a nursery garden at Didcot [59] in 1962, Inkpen [36] in 1966. Atlas 2000: [29], [49], [58], [59]

Ononis natrix L. *Yellow Restharrow* ● n 6 ↓

West Berks: not in Druce. Crookham Common [46] from 1947-51, next to the runways of the aerodrome on Greenham Common (**RNG**) [46] in 1951, on the old aerodrome at what is now Membury Services on the M4 (**RNG**) [312748] in 1978 and 1986.

Ononis x pseudohircina Schur = **O. spinosa x O. repens**

West Berks: in chalk grassland on East Hendred Down [4585] in 1964 (det. P. Morisset).

Melilotus altissimus Thuill. *Tall Melilot* ○ hp 6 ↓

Railways, rubbish heaps and waste ground (as *M. arvensis*); rare and sporadic. Told from the much commoner *M. officinalis* by fruits more than 5mm, typically 2-seeded and pubescent. The keel is equal to (not shorter than) the wings.

East Berks: first record in a chalk pit between Wargrave and Henley (1871). Maidenhead, near Windsor one plant. Warren Row, Wellington College (1927), Bracknell, Maidenhead tip, Leighton Park (1968), Smallmead tip (1973), Ambarrow (1981), Queens Eyot (1988). Recently from Dinton Pastures, Wellington College, Chawridge Bank. < 1% (1km²). Atlas 2000: [77], [87], [88]

West Berks: absent from most of the area west of 50 and south of 95, rare in the Northern Loop and in an area centred on Theale [66]. Odstone and Ridgeway [28], Crog Hill, Letcombe Castle and Wantage [38], Newbury [46], Wytham [40], Didcot [59] and Grandpont [50]; all pre-1897. More recent records from Bourton and Ashdown Park [28], Buscot, Faringdon and Badbury Hill [29], Childrey, Challow and Seven Barrows [38], Buckland [39], Ashridge Wood [47], Frilford and Marcham [49], Long Leys, Swinford and Chawley pits [40], Thatcham Marsh and Wasing pits [56], north of Hermitage and Yattendon [57], Lollingdon Hill and Aston Upton Down [58], Radley Station and Didcot Power Station [59], South Hinksey [50], Padworth Common tip, Pingewood pits and Theale [66], Sulham [67]. Atlas 2000: all except [68], [69]

Melilotus indicus (L.) All. *Small Melilot*
Trifolium indicum L.

• th 6 ↓

Waste ground, a rare casual on rubbish tips.

East Berks: rare in a field near Sonning railway bridge, Wellington College (RNG) in 1915, Cookham pit (1958), Reading tip (1962), Knowl Hill (1963), Smallmead tip (1988). Atlas 2000: [76], [77], [87]

West Berks: Wytham Mill [40], Abingdon [49], Newbury [46] and Pangbourne [67] all pre-1897, Beenham [56] in 1918, Frilford (OXF) [49] in 1923, Theale tip (LAN) [67] in 1956, Didcot [59] in 1965, Battle Farm tip [67] in 1969, Bradfield [57] in 1988. Atlas 2000: [57]

Medicago sativa L.

Medicago sativa subsp. **falcata** (L.) Arcang. *Sickle Medick*
Medicago falcata L.

• hp 6 ↓

A rare native of calcareous grasslands, but a casual of waste ground in Berkshire.
NVC: MG6,CG2,CG3,CG4,CG5

East Berks: not in Druce. Casual or temporarily established on waste ground; Reading, Knowl Hill (1963). Smallmead tip [7070] in 1965, Bulmershe College (1968). Atlas 2000: no records

West Berks: South Hinksey [50] in 1965. Atlas 2000: no records.

Medicago sativa subsp. **sativa** *Lucerne*

• hp 6

Sown fields, roadsides, railway banks and waste ground; "highly deserving of cultivation and more or less naturalized" (Druce). Occasional on calcareous soils, rare elsewhere.

NVC: OV3,OV10,OV15,OV16,OV18,OV19,OV20,OV21,OV22,OV23,OV39,OV41

Silwood Park: rare, but quite long persistent, as a naturalised plants, even in long grass. Silwood Bottom, on the eastern fence by the Reactor Track gate; 12 June 1980, gone by 1984. By the Zoology Greenhouses in 1983. At the trackside on Guinness's Hill, next to Silwood Bottom; one persistent clump by the fence (1980-89), presumably an escape from an alfalfa crop cultivated at some time before 1970 (no one recalls such a crop being grown in recent years, and it has certainly not been grown since 1979). Not seen for 13 years (1990-2002), then one plant found behind the CABI Quarantine Greenhouse in June 2003.

East Berks: Wellington College, Wargrave, Henley, Maidenhead, Twyford, Old Windsor. Scattered throughout, but particularly common by the path from Ryeish Green to Shinfield [725678] in August 2002. Locally frequent on the banks of Farleymoor Lake on the industrial estate in Bracknell [8569] in November 2002, and by the Drift Road on Braywoodside Roundabout [8775] in July 2003. Urban waste ground at Coley [7172] in October 2004. 4% (1km²). Atlas 2000: all squares

West Berks: occasional on the chalk and clay to the north of 80 but rare and scattered elsewhere. Hungerford Newtown [3672] in 1982, Thatcham Marsh [5167] in 1974, Pingewood pits [6869] in 1987. A form with sulphur yellow flowers was found at Wantage [38] in 1961. Atlas 2000: all squares

Medicago minima (L.) Bartal. *Bur Medick*
Medicago polymorpha L. var. minima L.

th 5 †

West Berks: found as a casual by Druce at Abingdon [49] in 1917 and 1919 (OXF). Not a native Berkshire plant.

Medicago polymorpha L. *Toothed Medick*

th 6 ↓

Medicago nigra (L.) Krockner

Medicago hispida Gaertner, nom. illegit.

Medicago apiculata Willd.

Medicago denticulata Willd.

Medicago polymorpha L. subsp. polycarpa (Willd.) Zarco, nom. inval.

Waste ground and cinder tracks, very rare. The commonest of the spiny-fruited casual medics.

East Berks: not in Druce or Bowen, Suttons Nurseries, Reading [77] in 1912. Smallmead tip [7070] in 1988. By the Thames-side path on the Berkshire side of the river at Henley [767836] on 17 June 2002. Atlas 2000: no records

West Berks: waste ground at Didcot [59] and by the railway at Newbury [46], both in 1896.

Wantage Road Station [49] in 1964, Cry Sandford [49] in 1922 (**OXF**) and again in 1983, Abingdon [49] in 1927 (**OXF**). Collected by Susan Erskine near the gatehouse to Didcot Power Station [514914] in 2004. Atlas 2000: [49]

Trifolium ornithopodioides L. *Bird's-foot Clover*

th 5 ↓

Trigonella ornithopodioides (L.) DC.

A local speciality of bare places on acid soils. Essentially a coastal plant in England and Wales, thriving in trampled places like car parks, tracks, viewpoints and picnic sites. It is typically a winter annual, but its rosettes are tolerant of winter flooding.

East Berks: extinct, formerly at Sutton's Nurseries at Reading (**RNG**) in 1889 and Shinfield (1918).

West Berks: known from Greenham Common in 1893. Bowen considered the plant to be extinct in Berkshire, but it is still (1999) locally plentiful on Greenham Common [4560] in very short, open sandy heath where it was first recorded in 1893. The open (extinct) symbol in the Scare Plant Atlas for [46] is an oversight.

Trifolium fragiferum L. *Strawberry Clover*

hs 7 ↓

Galearia fragifera (L.) C. Presl

Trifolium fragiferum subsp. **fragiferum**

Xerosphaera fragiferum (L.) Soják

Water meadows on clay or alluvial soils, and wet grassland on roadsides chiefly on clayey soil where water has stood for a time. Declining with the loss of undrained meadow land.

East Berks: rare in Thames meadows from Sonning to Cookham; once plentiful in Sonning meadows and at Ruscombe. Remenham, Hurley, Cock Marsh. Druce regarded the plant as "not uncommon", but much declined in the Thames Valley and rare or extinct elsewhere. There was a patch in Maidenhead Thicket [852816] in 2003. <1% (1km²). Atlas 2000: [78], [88]

West Berks: occasional in the upper Thames from Lechlade [29] to Abingdon [49] but absent elsewhere (south of 85) save for an outlying station at Hungerford [36]. Fernham [29], Balking [39], Buckland Marsh [39], Challow [38], Grove [49], Harrowdown Hill [30], Long Leys [40], Newbridge [40], Swinford [40], Marcham [49], Wytham Meads [40], Radley Meads [59], Pangbourne [67]. Atlas 2000: [29], [38], [49], [40], [59], [67]

Trifolium resupinatum L. *Reversed Clover*

● th 6 ↓

Galearia resupinata (L.) C. Presl

Xerosphaera resupinata (L.) Soják

Waste places, rare.

West Berks: Greenham [46] in 1894 (**OXF**), Tidmarsh Mill [67] in 1912 (**RNG**) and in a lawn in Eynsham Road, Botley [485059] in 1969.

Trifolium aureum Pollich *Large Trefoil*

● th 7 †

Cultivated fields, rare.

East Berks: Wellington College (1897). Rare casual in sown fields, Cookham (1954).

West Berks: Wootton [40] in 1888.

Trifolium medium L. *Zigzag Clover*

hp 6 ↓

Hedge-banks, rough borders of meadows, woodland rides, roadsides and railway banks; local and rather rare, Druce thought it was "commonest on heavy soils", while Bowen considered it to be "on dry, usually acid soils". Both agreed it was absent from the chalk. This is a local and very uncommon plant with us. It can only be distinguished reliably from *T. pratense* by the tips of the stipules. In *T. medium* they are green and linear lanceolate, rather like the blade of a Roman sword, but the stipule-tips are brown and bristle-like in *T. pratense*. Of course, you might prefer to count the chromosomes (2n = 14 in *T. pratense*, 2n = 80 in *T. medium*); sorry, only joking. The possession of an extended bare peduncle between the flower head and the uppermost bracts is *not* a reliable character.

Silwood Park: no records.

Ascot: rare, near Ascot Racecourse (1897), but no recent records.

East Berks: local and uncommon. Sonning, Wargrave, Hurley, between Earley and Wokingham, on the railway banks between Wokingham and Wellington College Station, Twyford, Owlsmoor, Bracknell, Warfield, White Brook, Leighton Park, Woodley, Twyford, Wokingham, Cookham reach. Recent records from Chawridge Bank, Dinton Pastures and Windsor Great Park. Apparently much declined (but perhaps previously over-recorded?). < 1 % (1km²). Atlas 2000: [87]

West Berks: rare in the Northern Loop with scattered records from south of 75. Near Buscot [238962] and Little Coxwell [281934] Harrowdown Hill [30], Poughley [37], East Challow [38], Enborne Street [46], Welford [47], Tubney Wood [49], Wytham Wood, Tubney Wood, Rockley Copse, and on the east side of Boars Hill [40], Cold Ash [56], Fence Wood [57], by the Ridgeway [58]. Atlas 2000: [29], [36], [37], [38], [46], [40], [57], [58], [50], [67]

Trifolium incarnatum L.

• th 5 ↓

Trifolium incarnatum subsp. **incarnatum** *Crimson Clover*

In Druce's time it was frequently cultivated and "a field of it in full flower is a very beautiful sight". Sown fields, once occasional, now rare and sporadic.

East Berks: Wellington College, Maidenhead, Twyford, Wargrave, Sonning (**RDG**) in 1931, Cookham, Winter Hill. Between Wokingham and Crowthorne (1946), Spencer's Wood (1956). Much reduced. Atlas 2000: no records.

West Berks: Garford [49], Thatcham [56], Streatley [58], Silchester [66], Southcote (**RDG**) and Tilehurst (**LAN**) [67]. Now very rare. Kingston Bagpuize [4098] in July 2003. Atlas 2000: [58]

Trifolium striatum L. *Knotted Clover*

th 5 ↓

Dry open turf in grasslands and commons on gravelly or sandy soils; local and rare. Absent from the chalk. The leaves are hairy on their upper surface, and the veins are straight all the way to the leaf edge. The calyx is white-hairy, with 10 green veins.

Silwood Park: very local and rare. Silwood Bottom, compacted ground on the edge of the 4-year old succession plot by the Guinness's Hill fence on 16 June 1980, but not seen since. Garden Wood Bank, disturbed ground close to the mown grassy strip along the top of the bank at the TTC end on 13 May 1990, but not seen since. Farm Road, at road level on the sunny bank of the side-road to Astrophysics; 13 May 1990, with *Trisetum flavescens* and *Carex muricata* subsp. *lamprocarpa*. One plant was still there in 2000, but not seen again until May 2004 when again there was one plant.

East Berks: Wellington College, Old Windsor, Swallowfield, Loddon Bridge, in a brickfield near the railway bridge in Twyford, railway cutting at Sonning (**RDG**) in 1913, Spencer's Wood Common. Rare in the Thames valley, absent elsewhere. Sutton's old nursery at Reading, Woodley (**LAN**), Maidenhead Thicket, Cookham, at the foot of the chalk slope near Pond 1 in Cock Marsh, Coleman's Moor, Old Windsor. Recently at Ashbury Park, Wellington College, North Crowthorne, Bray Meadows, Windsor Great Park. 1% (1km²). Atlas 2000: [76], [77], [86], [88], [96], [97]

West Berks: absent from the chalk and much of the interior. Little Coxwell [29], Buckland Warren, Hatford, Gainfield and Longworth pit [39], Youlbury [46], Grove, Frilford Heath, Tubney Wood, Hitchcopse pit [453997], Dry Sandford pit [465996], and elsewhere in Cothill [49], Youlbury and Chilswell Farm [40], Long Wittenham and Radley pit [59], Greenham Common and Newbury [46], Crookham Common and Cold Ash [56], Downe House [57], Lough Down and Streatley [58], Silchester [66], Church End, Ranikhet Camp and Tilehurst [67]. Atlas 2000: [29], [39], [46], [49], [40], [56], [57], [58], [59], [66], [67]

Trifolium scabrum L. *Rough Clover*

th 5 ↓

A local speciality of bare sandy places on dry fields and commons. A coastal species that is very local and rare inland. The lateral veins of the leaflets are thickened and arched-recurved at the leaf margin which distinguishes it from *T. striatum*.

East Berks: extinct. Formerly on ground occupied by a brickyard near Twyford (1897). Bowen did not find it here, despite repeated search. Atlas 2000: no records.

West Berks: still at Frilford Gold Course (**RDG**) [448986], Hills Sandpit at Tubney [40] in 1995 and 2003, formerly at Cothill [49], Bessels Leigh [40], Padworth Common [66], Bradfield [67]. Atlas 2000: [49], [40], [59]

Trifolium leucanthemum Bieb.

• th 7 †

East Berks: a wool and tan bark casual found on rubbish pits in Reading [77] in 1924 (det. C.C. Townsend)

Trifolium subterraneum L. *Subterranean Clover*

th 5

Calycomorphum subterraneum (L.) C. Presl

Gravelly commons and dry, sandy, acid banks; very local and rare. Now most often found in the compacted parts of lawns.

Silwood Park: one of the specialities of the native flora. In the lawn above the Ha Ha; two small patches above the footpath ramp, about one third of the way between the edge of the Ha Ha and oak number 7. First discovered in flower on 9 May 1984. Still there 13

May 1987, but not seen in the very dry May of 1989. Still there on 13 May 1990. Lots of patches, but few flowers; 6 June 1993 and 19 May 1994. Beautifully marked leaves 20 April 1996, and good flowering in a series of patches measuring 6m by 2m; 25 May 1996. Good on 4 May 1998 and the patch measured 6m x 4m in May 2000. This patch was almost gone by May 2004. It also occurs sparingly all along the edge of the lawn, by the kerb stones marking the edge of the car park in front of the Manor House (1984-2004). Drive Field, on the banks of the lawn beneath beech by the Drive in thin turf with *Vulpia bromoides*; 5 small patches 22 May 1994. Still there, in heavily trampled turf at the edge of the beech canopy, flowering well in May 1999 and 2003. Lily Pond Lawn, on the sloping bank facing the pond below Phase 1. Discovered 9 May 1984, but Ted Green says he had known about it for years; typical! Present in low numbers 16 May 1996 and not seen again until 2000. In 2002 the patch was 5m x 2m at the end of the lawn closest to the Manor House. Croquet Lawn Cedars; one plant on bare ground of the path under the larger cedar; 8 May 2000. Much increased in recent years; locally abundant in 2001 in 4 patches on the grassy bank of the lawn between the Manor House and the Lily Pond, where students sit on the grass in summer during their tea breaks. In flower abundantly below Phase 1 on 24 April in the very early spring of 2002, but 2004 was a poor year for the plant in all its Silwood sites (it grows with *Ornithopus perpusillus* and this species did particularly well in 2004).

East Berks: near Hurst (1875), Wellington College, "rather plentiful over a limited area of Bircher's Green between Twyford and Maidenhead" (1892-96), Sandford Mill (1918). Woodley (**RNG**), Coleman's Moor (1958), Ascot (1951), Wellington College (1960). Recently only at White Swan Lake and Wellington College. <1% (1km²). Atlas 2000: [77], [86], [96]

West Berks: Frilford Heath golf course practice ground in 2000, and in set-aside at Frilford [446981] in 2002. Formerly at Grove and Tubney [49]. Atlas 2000: [39], [49], [56]

Genista tinctoria L. *Dyer's Greenweed*

n 7 ↓

Ancient grasslands, heaths, dry unimproved pastures, and woodland rides, often on clay soils. Local and decreasing.
NVC: CG 5; MG 5

Silwood Park: extinct as a result of shading by *Cytisus scoparius* and *Holcus mollis*. It grew for many years just south of the Ashurst Path on the crest of Rookery Slope (since before 1970), amongst grass below the broom. The plants were rabbit grazed and hard to find in winter. First flowers seen 28 July 1980. Still there in 1989, but not seen since. It is not clear whether this was native or a planted patch. The insect fauna of Dyer's Greenweed had been studied over many years by Dr S. McNeill and his students at Chawridge Bank (below), and it was cultivated by the Header House as a screening plant for gorse biocontrol insects by CIBC from 1983, but it never sowed itself here.

East Berks: near Wellington College, Waltham, Maidenhead, Blackwater, Winkfield, between the river at Jouldern's Ford and Finchampstead, abundant but much damaged by the June frost of 1892. Finchampstead Leas, Binfield Manor, Jealott's Hill, Hawthorn Hill, Arborfield, Windsor Forest (1974), Twyford [812751] (1984). A single plant in the northern verge on the Wokingham side of Coppid Beech roundabout [835689] in June 2003. Still common in the ancient grassland nature reserve at Chawridge Bank [894738] in 2003. 1% (1km²). Atlas 2000: [86], [87]

West Berks: local and rare, in the Northern Loop and on the southern heaths. The only recent records are Inkpen [36], Crockham Heath and Enborne [46], Cothill [49], Wytham [40], Bucklebury (**LAN**) [57], Mortimer Common (**RDG**) [66]. Also at Briff View field [545705], Enborne [436653] and [439652]. Atlas 2000: [36], [46], [49], [40], [56], [57], [66]

Genista anglica L. *Petty Whin*

n 5 ↓

Heaths, bogs, woodland rides and acid grasslands; local, rare and decreasing. One of the first plants to disappear as a result of cultivation. Many of the plants on mown rides in the Crown Estates woodlands are close to extinction as a result of over-frequent cutting and shading from overhanging trees.
NVC: H 2

Ascot: very rare and declining on woodland rides in the Crown Estates, as at Whitmoor Bog [8968], Swinley Park [8967], Blane's Allotment [8966], and in woods near The Orangery, south of the A322 roundabout [906647]. Still in the short rough on the western part of the golf course on Ascot Heath Racecourse [9169] in May 2002, but rare and threatened by fertilization. Formerly on Sunningwell Bog, and on the eastern part of Ascot Heath [9269], where it was last seen in 1972. There is a 'new Berkshire' site in Sunningdale [965660] on Chobham Common NNR across the border in v.c.17 Surrey.

East Berks: formerly at Cookham Down, Twyford, Hurst, Arborfield, Finchampstead Leas, Pinkneys Heath and Coleman's Moor. Now confined to the south of the district at Owlsmoor bog [849631], Queens Mere and Nine Mile Ride, Bracknell, Wishmoor Cross [8863], Edgebarrow Hill, Sandhurst, and Wellington College bog. 1% (1km²). Atlas 2000: [76], [86]

West Berks: confined to acid sands in the south-east of the district, with an outlier at Cothill [40]. Enborne Row [450635] and [448635], Silchester Common [6162], Gibbet Piece [6465]. Atlas 2000: [36], [47], [40], [56], [57], [66], [67]

HALORAGACEAE

Myriophyllum alterniflorum DC. *Alternate Water-milfoil*

hyd 6

Ditches and ponds in base-poor water. The upper flowers are not in whorls (as they are in *M. spicatum*) but are opposite or alternate, and the leaves have many more segments (13-38 compared with 6-18).

Ascot: very local in Virginia Water [9668] in 1987.

East Berks: Loddon Bridge (1699). Very local and rare in a pond near Finchampstead. Ponds with acid water; local in south Berkshire. Long Moor Pond (1965), Sonning, Bulmershe Lake (**RDG**) in 1965, Heath Lake (1961, and still there in 2001), Wokingham (1918), Sandhurst (1965, still there in 2002 in the v.c.22 part of Lower Lake), Trilakes [829614] in 1975 and Broadmoor (1999). Atlas 2000: [76], [77], [86], [96]

West Berks: extinct in Druce's celebrated site in Wigmoreash Pond [36] on top of Walbury Camp and Gibbet Hill (1890) (**OXF**), and from the site at Enborne [46]. More recent records are from Sandlesford Priory [46] in 1965 and from the R. Cole [29] in 1978. Atlas 2000: [46]

LYTHRACEAE

Lythrum hyssopifolium L. *Grass-poly*

o th 6 ↓

A *Red Data Book* species of seasonally wet arable fields. It has pink, crumpled petals, and grows at only 5 surviving sites in Britain (Wigington, 1999). A spring-germinating annual of hollows, ruts and low-lying ground in cultivated fields, possessed of long-lived in the seed bank. Bowen reckoned that the plant was extinct in Berkshire, but it was rediscovered at Cholsey by Ron Porley in 2001. NVC: OV36

East Berks: found only once (by Gotobed in 1805) on a wet piece of ground near Windsor (possibly in v.c.24 Buckinghamshire).

West Berks: collected by Prof. J.S. Henslow at Cholsey from 1825-35 (**OXF**, **RNG**, **BM**, etc.) and from "near Wallingford" (probably the same site) in 1897. Not seen again until found by John Souster in 1968. Rediscovered by Ron Porley in the corner of a winter-flooded field near Cholsey (presumably the same place where Henslow found it) at [60535 86154] where there were 435 plants growing with *Juncus bufonius* in tractor ruts west of the main drainage ditch on 14 August 2001. Word soon spread of its rediscovery and there are other references from 2001 and 2002 at [60531 86164], [601864], and a single plant in a wheat-field at [60499 86085] south of Wallingford opposite North Soke (total numbers c.600). It is ironic that such a rarity as a native plant (but now considered to be an archaeophyte), should be so common as an alien plant overseas. For instance, it has been introduced into New Zealand, and is frequent weed of damp disturbed ground in many parts of both North and South Islands (see also *Mentha pulegium*).

Lythrum portula (L.) D.A. Webb *Water-purslane*
Peplis portula L.

th 6

Wet places and pond margins on heathy ground on the Bagshot Sands.
NVC: OV 20,31,35

East Berks: common in the heathy parts of the district, on the acid sands of the south and east; Bulmarsh, Watery Lane, Park Place, Warren Row, Earley, Ascot, Bagshot, Wellington College, Long Moor, Finchampstead, Sandhurst, Spencer's Wood Common, Ambarrow, Hurst Green, Windsor Park by Virginia Water, Bearwood, Easthampstead Plain. Damp woodland rides, on bare mud in marshes and by streams or ponds. Local and absent from calcareous soils. It is not clear whether it is decreasing or has been overlooked in recent years. Farley Hill, Woodley, Warfield. Sandhurst (1975), Rapley Lakes (1986). Moor Green Lakes nature reserve [8062] in 2001. 1% (1km²). Atlas 2000: [76],[77],[86],[87],[96],[97],[98]

West Berks: all but confined to the heaths of the extreme south-east (south of 75 and east of 45). Inkpen [36], Newbury and Greenham Common [46], Snelsmore Common [47], Cold Ash Common, Crookham Common, Wasing Wood and Carbin's Wood [56], Fence Wood [57], Bagley Wood [50] in 1833, Burghfield [66], Aldermaston Soke, Mortimer Common, Ufton Nervet and Silchester [66]. Atlas 2000: [36],[47],[40],[56],[57], [66],[68]

THYMELAEACEAE

Daphne mezereum L. *Mezereon*

n 2 ↓

A scarce plant in Britain, found in woodland on calcareous soils with *Brachypodium sylvaticum*, *Hyacinthoides non-scripta* and *Mercurialis perennis*, and in chalk pits where there is little competition from other ground flora; very rare and sporadic. Many of the plants, however, are garden escapes.
NVC: W 8

East Berks: in dense woods and thickets; rare and local. Knowl Hill in 1897 and Bearwood (**RDG**) in 1911. In the thicket nearly opposite the whitening factory at Warren Row (1897). Bowen failed to find the plant in these sites. Only one surviving site under beech in Park Wood at Bisham (**RNG**) [851840] in 1983.

West Berks: Wantage [3585] in 1961, Appleton Lower Common [4200] in 1948, Hinksey woods [5004] in 1821, Tubney [4400] in 1821, Frilsham Common [5373] in 1839, Hampstead Norreys (**RDG**) [5276] in 1913, Ashampstead [5676], Burghfield Common near Three Firs [6566]. Recently recorded by Jacqueline Wright in 2002 who found 4 stems in the north-west pit and 1 stem in the north-east pit at Chawley Brick Pit at Cumnor Hurst [475044]; the plants were struggling by 2004. Atlas 2000: no records.

ONAGRACEAE

Epilobium x limosum Schur = **E. parviflorum x E. montanum**

West Berks: one of the commonest of all the hybrids: found at Wytham [40] in 1946 (**OXF**) (det. G.M. Ash)

Epilobium x palatinum F.W. Schultz = **E. parviflorum x E. tetragonum**

Epilobium x weissenburgense F. Schultz

West Berks: collected by Druce at Uffington [38] in 1889 (**OXF**) (det. G.M. Ash)

Epilobium x dacicum Borb s = **E. parviflorum x E. obscurum**

West Berks: found by Bowen at Wytham [4505] in 1946 (**OXF**) (det. G.M. Ash)

Epilobium x persicinum Rchb. = **E. parviflorum x E. roseum**

West Berks: found by Bowen at Wytham [4505] in 1946 (**OXF**) (det. G.M. Ash)

Epilobium parviflorum x ciliatum

East Berks: Cookham tip [8580] in 1958 (det. G.M. Ash)

Epilobium x aggregatum Celak. = **E. montanum x E. obscurum**

West Berks: Wytham [40] in 1946 (**OXF**) (det. G.M. Ash)

Epilobium x mutabile Boiss. & Reut. = **E. montanum x E. roseum**

East Berks: collected at Reading [7070] in 1931 by S.O. Ridley (**RDG**)

Epilobium montanum x ciliatum

Epilobium adenocaulon x montanum

Probably the commonest off all the hybrids.

East Berks: first record Leighton Park [7070] in 1960 (det. G.M. Ash).

Epilobium lanceolatum Sebast. & Mauri *Spear-leaved Willowherb*

h 7 ↓

A rare willowherb of disturbed sites with open vegetation cover and reduced competition like open banks, walls, quarries, railway ballast, and occasionally as a garden weed. Often found growing with *Senecio squalidus*. Above ground stolons terminate in leaf-rosettes. Stigma 4-lobed and pubescence like *E. montanum*, from which it is distinguished by cuneate lower leaves with longer petioles, 3-10mm (*E. montanum* has abruptly rounded leaf base and a short petiole 2-6mm).

East Berks: no records.

West Berks: on hedge-banks and ditches on gravelly soil; very local and rare. Between Mortimer and Silchester, and Mortimer and Stratfield Saye. In the absence of herbarium specimens, Bowen disputes these records. Still, it is worth looking for. On a wall at Ferry Lane Moulsoford [5983] in 1985 (**OXF**) (det. T. Pennington). A single plant on railway ballast west of Didcot [509913] on 26 September 1987 (field record, det. H.J. Killick). <1% (1km²). Atlas 2000: [58], [59]

Epilobium tetragonum x ciliatum

East Berks: Reading [7173] in 1982 (no specimen).

West Berks: Appleton Lower Common [40] in 1965 (det. T. Pennington).

Epilobium x brachiatum Celak. = **E. obscurum x E. roseum**

East Berks: collected by E.S. Marshall at Sandhurst [8060] in 1898 (det. G.M. Ash)

Epilobium x schmidtianum Rostk. = **E. obscurum x E. palustre**

West Berks: collected by Druce on Greenham Common [4560] in 1891 (**OXF**) (det. G.M. Ash)

Epilobium roseum Schreb. *Pale Willowherb*

h 7 ↓

This is a rare willowherb and may include the earliest records of *E. ciliatum* (see below). They are separated critically on their seeds (truncate and minutely papillose in *E. roseum*; appendaged and with longitudinal papillose ridges in *E. ciliatum*). By their jizz, *E. roseum* has petiolate (not sessile) leaves and distinctly pale-pinkish (not reddish) flowers and fruits.

Stonework, woodland rides, damp gardens and waste ground, ditches and stream-sides; local and rather rare. “It is somewhat remarkable to find this plant growing to a height of three feet by brooksides and to find it in garden ground even in a large town like Reading, where it is usually seen about the railway station, bearing the smoke without damage. In such situations the plant, however, is less luxuriant” (Druce).

Ascot: no records

East Berks: Shinford Green, near Windsor, by the Blackwater. Reading (**RDG**) in 1930. Leighton Park (1962), Smallmead tip (1965). Farley Hill in 1992. On stonework by the R. Thames just north of the road bridge in Maidenhead [9081], and on a rotting pier-post in the R. Thames at Remenham [767837] in July 2002. <1% (1km²).

West Berks: Inkpen [36], Eastbury [37], Greenham and Hamstead Marshall [46], Appleton Lower Common and Wytham [40], Cold Ash and Bagnor [56], Frilsham and Greathouse Wood [57], Pingewood tip (**RDG**) in 1915, Padworth and Mortimer [66], Pangbourne and Sulham [67]. Bowen thought it was extinct at many of the southern Kennet sites; would repay further investigation. Atlas 2000: [29], [46], [40], [59], [67]

Epilobium brunnescens (Cockayne) P.H. Raven and Engelhorn *New Zealand Willowherb* • h 6

Epilobium pedunculare Cunn. var. *brunnescens* Cockayne

Epilobium nerteroides auct., non Cunn.

Much less common in southern England than in northern and western Britain, presumably because the climate is too dry. Not known from Berkshire in Druce’s time, and still very uncommon.

Ascot: no records

East Berks: first recorded on a wall in Redlands Road, Reading [7272] by Bowen in 1968.

West Berks: first recorded from a garden in Thatcham [5167] in 1983, and between the bricks of a garden path in Abingdon [4997] in 1995.

Oenothera *Evening-primroses*

• hs 7

A fascinating, and excruciatingly complicated genus of alien monocarpic plants from North America. What makes them so special is their chromosomes. They have an anomalous genetic system called *permanent translocation heterozygosity* (PTH) that is known from some other Onagraceae (49 spp.), and a handful of species from other families like Campanulaceae (2 spp.), Commelinaceae (2 spp.), Clusiaceae (2 spp.), Iridaceae (3 spp.), Paeoniaceae (2 spp.), and Papaveraceae (1 sp.). They have rings of chromosomes resulting from reciprocal translocations, and these form linkage groups involving more than one bivalent. This system represents the ultimate in linkage disequilibrium: each of the 7 haploid chromosome complements is connected through reciprocal translocations, making the entire genome behave as a single linkage group. The system allows one or two basic genotypes to be reproduced virtually unchanged in each generation, allowing well adapted genotypes to increase very rapidly in the open, disturbed environments that they typically inhabit. The reproductive system is a bit like apomixis, but without the asexuality; reproduction in *Oenothera* is exclusively sexual, but self pollination is very common. When new varieties arise by rare mutations or recombinations, or more frequently by hybridisation, these immediately form true-breeding lines, and these genotypes may become very abundant if local conditions are favourable. Heterozygosity is maintained through the prevention of homozygous combinations through a system of *balanced lethals*: homozygosity of nonallelic recessive lethal genes results in mortality (either sporophytic or gametophytic) when the parent plant is autogamous.

One of the things that makes the taxonomy of these plants so challenging is that many of the taxa first came into contact with one another as aliens in Europe (they were geographically isolated from one another in their native North American communities). The resulting hybrids were able to breed true, but often intercrossed with other new taxa, or back-crossed with their parental types.

Genome and plastome composition is the key to understanding their relationships. There are 3 major differentiated genomes in the native range, designated A, B and C. The genome groups are associated with the morphological features that we use in identification keys, like stem pubescence, leaf colour, leaf shape, and so on. Likewise, there are 5 basic plastid genomes designated as plastomes I-V. These can combine in various ways: diploid individuals, for example, could have both genomes of the same type (e.g. AA) or of different types (e.g. AB, AC or BC), and each of these could be associated with one of the plastomes. The essentially clonal PTH populations are delimited according to their genomes and plastome types, but only certain combinations of genome and plastome types are viable. For instance, genome BC is only viable when it occurs with plastome IV (as represented by *O. parviflora*). The most complicated combinations involve *O. biennis* (e.g. genome AB with plastome II is Biennis group II, while genome AB with plastome III is Biennis group I, containing our common *O. glazioviana*).

O. glazioviana is especially interesting. It is a species of hybrid origin, probably formed in Britain in the late eighteenth century, as the result of a cross between alien parent taxa that were growing as garden outcasts on open waste ground. It was introduced into horticulture by Carter and Co. in 1860, but it was not described as new to science until it was collected from a potato field in Holland by Hugo de Vries in 1886. He went on to make the study of *O. glazioviana* his life's work. The type specimen comes from plants cultivated in Rio de Janeiro in 1868, which demonstrates how rapidly and how widely the plant had been distributed by the horticultural trade since 1860. It now has an almost worldwide distribution as a secondary alien spread from Britain for horticulture and as an unintentional seed contaminant. At present, it is not possible to distinguish between 3 competing hypotheses for its hybrid origin:

- *O. elata* subsp. *hookeri* (AA-I) x *O. biennis* (BA-III)
- *O. elata* subsp. *hookeri* (AA-I) x *O. grandiflora* (BB-III)
- *O. biennis* (AB-II or BA-III) x *O. grandiflora* (BB-III)

The first cross gives the correct genomic combination and plastome if the *O. biennis* parent was Biennis-I. The second is unlikely because the only known end arrangements of the chromosomes of *O. grandiflora* differ from the B genome of *O. glazioviana*. The third has the A genome from *O. biennis* and the B genome from *O. grandiflora* but again, the proper chromosome end arrangements are not known. Hypothesis 1 is therefore the most plausible on current evidence. It is the only regularly outcrossing PTH species in the family Onagraceae. In addition to the ring chromosome, it has a single bivalent chromosome in meiotic metaphase I.

The 562 published names of *Oenothera* were ruthlessly lumped into 13 species by Dietrich, Wagner and Raven (1997). "Good on them", you may say, but for Berkshire botanists, this was one lumping too far, because they sunk *O. cambrica* (our very distinctive, Really-small-flowered Evening-primrose) within *O. biennis*. I retain the old British usage here in order to give names to Silwood's 3 very distinctive taxa: *O. biennis*, *O. cambrica* and *O. biennis* x *O. cambrica*

Literature:

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Oenothera glazioviana P. Micheli *Large-flowered Evening-primrose*

• hs 6 ↑

Oenothera erythrosepala Borbas

Oenothera grandiflora L'Hér. subsp. *erythrosepala* (Borbas) Á. Löve and D. Löve

This is much the commonest of our big yellow-flowered Evening Primroses, frequently seen on roadsides and in villages as a garden escape. Railway tracks, waste places and tips; local but increasing. The petals are very large (50mm long and 55mm wide), and the stigma is elevated above the anthers at anthesis; in all the other Berkshire taxa, the stigmas are interspersed with the anthers and hence self-pollinated.

Silwood Park: abundantly self-sown and completely naturalised in beds around The Greenhouses, looking for all the world as if it had been intentionally planted. People dig up large quantities of the rosettes every winter and move them to their gardens. Drive Lawns. Chalk Plots, accidentally introduced with the chalk from Maidenhead Thicket in 1983 when the plots were constructed; first rosettes seen in November 1983, but flowers have not been seen since 1985. Garden Wood Laboratories, waste ground, one plant on imported topsoil; 10 July 1989. Cheapside Village, The Playground. A group of plants on the cinder pot standing at The Greenhouses, next to the beehives on 3 July 2004. Much less common on waste ground in Silwood than *O. biennis* x *O. cambrica*, but commoner in flower beds.

Ascot: Fernbank Road, Coronation Road, Sunninghill, Charters Road, Sunningdale, Locks Ride, New Road, North Ascot, Ascot Place, Cranbourne Roundabout. On the steep banks of Truss Hill Road and in the playground of Sunninghill School. The once-magnificent population on King's Ride [903682] has been greatly reduced following construction of the new science park. There was only 1 plant there in July 2001, where formerly there had been many hundreds, but the plant is still common on railway banks nearby [9168]. Scattered amongst abundant *Conyza sumatrensis* on the steep slopes of the spoil heaps at Short's Skips south of Ascot High Street in October 2004.

East Berks: not in Druce. Road-sides at Charvil [7775] in 1987, Amen Corner [8469] in 1991, but now frequent throughout, especially by the railway. 23% (1km²). Atlas 2000: all squares

West Berks: first recorded in 1908 from the railway at Didcot. Scattered in the Thames valley and Kennet valley but rare or absent from the interior. Sutton Courtenay [59] in 1980, gravel pits at Theale [66] in 1983, Wasing pits [56] in 1987, Marcham [49] in 2002, Kingston Bagpuize [4098] in 2003, Bourton [2386], Coleshill [2393], by the R. Lambourn in Great Shefford [3875], Steventon [4791], Blewbury [5385], by the A4 at Theale [6370] and west of Reading Station [6974] in 2004. Atlas 2000: all except [47], [48], [69]

Oenothera x fallax Renner *Intermediate Evening-primrose* ● hs 6 ↑

This is like *O. cambrica* in that the fruits have red-based bulbous hairs, but the fruits are small (20-30mm) and all of them are covered with glandular hairs, the top of the rachis is red (to reddish), and the sepals are red-stripped. The petals are slightly wider than long (28 x 32mm)

West Berks: on waste ground behind Sainsbury's superstore in Wantage [397882] in October 2004. Growing with plants that had pale green, unstriped sepals (these would be *O. x fallax* x *O. cambrica* in Stace, with fruits 25-30mm long).

Oenothera biennis L. *Common Evening-primrose* ● hs 7 ↓
Oenothera novae-scotiae Gates

Railway banks and waste places. Rare in Druce's time, commoner in Bowen's, but uncommon again now; *O. glazioviana* is truly the "Common" evening primrose in Berkshire nowadays.

As now revised, *O. biennis* embraces two types: to the geneticists (Cleland, 1972) they are Biennis-I and Biennis-II, while to the taxonomists (Munz, 1965) they are subspecies, *O. biennis* subsp. *centralis* and *O. biennis* subsp. *caeciarum*. The main difference between the two relates to a reversal of maternal and paternal transmission of the complexes. "In Biennis-I, which has a BA genomic combination, the B genome is transmitted through the egg, whereas in the other race, Biennis-II, which has an AB genomic constitution, the B genome is transmitted through the pollen" (Dietrich, Wagner and Raven, 1997). They are distinguished as follows:

1. Inflorescence lacking glandular hairs, but with dense, appressed, upward-pointing hairs, lower leaves lobed towards the base, stems typically green Biennis-I (*centralis*)
1. Inflorescence glandular pubescent, lower leaves merely dentate, stems often flushed with red Biennis-II (*caeciarum*)

Biennis-II (*caeciarum*) is the most commonly naturalized in Europe. The new *O. biennis* "consists of literally hundreds of minutely differing phenotypic races that are true-breeding, and recognizing any of them in the taxonomic system would lead to a never-ending description of them" (Dietrich, Wagner and Raven, 1997). The traditional British interpretation followed here has small flowers (petals 1.5-3cm long) and lacks red bulbous-based hairs on the green parts of the stem. Otherwise similar plants with red bulbous-based hairs on the stems and fruits are assigned to *O. cambrica* or their hybrids.

Silwood Park: rare and sporadic. One plant in the grass opposite M-Scan on 1 November 1984. Two large plants on the path to the Science Park from Garden Wood Bank, presumably brought in as seeds in imported topsoil; 6 August 1989. Not seen since.

Ascot: very rare. A single plant under the hedge at the extreme eastern end of the car park at Ascot Station on 29 June 2001 (K). There were six plants in July 2002 and two in July 2004. These Ascot plants have no red-based hairs at all, but they have dense, short, clear glandular hairs on the fruits, and sparse, short, clear glandular hairs on the stem. The fruits (20mm x 4mm) have sparse, long, clear-bulbous-based hairs, which are even sparser on the light-green, rather shiny stems. The flowers are intermediate in size (25mm long) and slightly wider than long (27mm). The yellow sepals are red-tipped.

East Berks: quite naturalized on heathy ground near Bracknell in 1892 (OXF). By the railway near Twyford (1897). Wellington College (RNG) (1916), Wokingham Station (OXF) (1965), Winter Hill (1954), Coleman's Moor (1960), Bracknell (1965), Park Place (1965). Recently from Edgebarrow, Dinton Pastures, Braywoodside, Mount Skippet, Maidenhead, Cookham. 1% (1km²). Atlas 2000: [78], [86], [87], [88], [96]

West Berks: Enborne [46] in 1895 (BM), Frilford Heath [49], Radley [59] in 1918, Kennington tip [50] in 1951, Tilehurst (LAN) [67] in 1956, Tubney Wood [40] in 1965 (OXF). Locally abundant on cinder in railway sidings at Didcot Parkway Station [5290] in 2003; a few of the plants have red bulbous-based hairs, but are otherwise identical (there is a striking absence of *O. glazioviana* at this site). Kingston Bagpuize [4098] in July 2003. Atlas 2000: [49], [40]

Oenothera biennis x Oenothera cambrica *Small-flowered Evening-primrose* ● hs 7 ↑

Under the British treatment, the Silwood plants have been allocated to *O. biennis* x *O. cambrica* because of the combination of very small flowers, red bulbous bases to the stem hairs, etc. (the petals are only 13mm long, which is a *O. biennis* character) and the plants are very tall (to 1.8m, again a trait of *O. biennis*). However, half of the bulbous hairs on the stem are red-based, not clear, and the petals are as long as wide (features of *O. cambrica*). There are no glandular hairs on the fruits but there is a mixture of forward-pointing, long, clear-based hairs and denser, short hairs. The upper parts of the plant are predominantly green with a scattering of pink, bulbous-based hairs and clear bulbous-based hairs, but no glandular hairs. The leaves are short-hairy above (but densely

appressed hairy on the upper midrib) and longer-hairy beneath. It begins to flower a good 14 days later than *O. biennis* and *O. cambrica* in Silwood (in mid-July most years). The anthers shed their abundant pollen directly on to the unfolded stigma lobes. Under the modern US treatment, *O. cambrica* and all its hybrids are sunk within *O. biennis* (see above).

Silwood Park: locally common; the most frequent member of the genus. Ted Green always maintained that the Small-flowered Evening-primrose that grew wild in the beds surrounding the Sirex Unit in the 1970s had been introduced as seed from the Middle East, though by whom (and why) was never clear. The Sirex Unit was demolished in 1986 to make way for the CABI Building, but the *Oenothera* lived on in bare ground around the Header House. Frequent every year in the flower beds of the perennial borders at the Horticultural Greenhouses, but somewhat less abundant there than *O. glazioviana*. Abundant and increasing from year to year on the cinder pot stand. Header House, behind the greenhouses from 1993 onwards, especially amongst the naturalised Sea Beets (qv), surviving the construction of the new greenhouse complex in 2000-01. Silwood Lodge, Cricket Wicket, on the ruined foundations of the Cocoa Greenhouse, but gone by 2003. A rare ruderal in arable land at Silwood Bottom in 1999 and 2002. Locally common on bare ground in the rockery of the Japanese Garden in August 2003.

Oenothera cambrica Rostanski *Small-flowered Evening-primrose* • hs 7
Oenothera parviflora auct., non L.
Oenothera ammophila auct., non Focke
Oenothera novae-scotiae auct., non Gates

Railway tracks and waste places on disturbed soil. This is included within *O. biennis* by Dietrich, Wagner and Raven (1997). The British treatment is that *O. cambrica* has capsules 3-4cm (not 2-3cm to distinguish it from *O. x fallax*) and small flowers (petals 1-3cm, rather than 3-5cm in *O. glazioviana*), that are as wide as long (not wider than long as in *O. biennis*). It is also told from *O. biennis* by the possession of red (not clear-coloured) bulbous-based hairs on the upper stem.

Silwood Park: there was a group of 5 plants on the cinder pot-standing at The Greenhouses on 3 July 2004: they had relatively big petals (30mm long and 32 mm wide, compared with 13mm long in the hybrid, above), lots of red bulbous-based hairs on the upper stem, capsules and peduncles, but absolutely no glandular hairs on either the stem or capsules (there were dense, clear, appressed, upward-pointing hairs instead, like illustration *e* in Fig. 30 of Dietrich et al., 1997). This matches the description of *O. biennis* subsp. *centralis* of Munz (1965) in pubescence, but the petals on the Silwood plant are rather large.

Ascot: very local and rare. Heatherwood Hospital, Sunninghill Village.

East Berks: not in Druce. Cookham Allotments (1956), Whiteknights Park (1964), Bracknell (1965), Battle Farm tip (OXF) in 1965. On sunny waste ground between the railway and Tesco's Superstore at Kings Meadow in Reading [719738] on 11 October 2003. Atlas 2000: [76], [77], [96]

West Berks: Didcot Station (OXF) [59] in 1965 and 1977, by the railway at Appleford (OXF) [5293] in 1977. Atlas 2000: [59]

Oenothera stricta Ledeb. ex Link *Fragrant Evening-primrose* • hs 6
Oenothera odorata auct., non Jacq.

An uncommon garden plant with dark red upper stems and sepals and fragrant yellow flowers that soon fade to red.

East Berks: not in Druce. Reading tip (1960). Very rare in North Hanworth [8667] in 1999. Atlas 2000: [86]

West Berks: in paving cracks in Wallingford [68] in 1968 and 1981. Atlas 2000: no records

Oenothera macrocarpa Nutt. *Ozark Sundrops* • hs 6
Oenothera missouriensis Pursh.

This is the common bedding plant, often used in mass-plantings at the front of herbaceous borders and on rockeries. The huge yellow flowers stay open all day, and are held on almost prostrate, mat-forming stems. A rare outcast on tips, not naturalised or persistent in Berkshire.

East Berks: Reading tip in 1998.

West Berks: at Kingston Bagpuize [4098] in 2003.

Cornus mas L. *Cornelian-cherry* • m 6

East Berks: no records

West Berks: in a hedge at Didcot [59] in 1965. Atlas 2000: [28]

SANTALACEAE

Thesium humifusum DC. *Bastard-toadflax*

p 6 ↓

A wonderfully curious plant of short turf in unimproved chalk grassland, dry chalky banks and downs, which is parasitic on the roots of *Asperula*, *Scabiosa*, *Festuca*, etc.; very local and decreasing.
NVC: CG 2,3,5

East Berks: an extinct local speciality, known to Druce from the chalk at Park Place, and near Hurley, but not seen there by Bowen or by me.

West Berks: formerly across the whole width of the chalk, but now extinct or rare to the west of 45, presumably as a result of habitat destruction through fertiliser pollution, ploughing and re-seeding. Kingstone Coombes [270850], Odstone Coombes and Dean Bottom [28], Lambourn [37], Crog Hill, Uffington and Letcombe [38], Cherbury Camp (**OXF**) [39], East Hendred Down, Ardington Down and Knollend Down [48], Hurdle Shaw and Basildon [57], Churn Halt, Lowbury Hill, Blewburton Hill (**OXF**), Streatley Hill (**RNG** and **RDG**), Streatley Downs (**RDG** and **LAN**), Roden Downs, Moulsoford Downs, Kingstanding Hill and Thurle Down [58], but probably extinct at Ashbury [28], Cherbury [39], Farnborough [48] and Cholsey [58]. Recent records from Weathercock Hill [288820] and Crog Hill [322833]. The plant would clearly repay further study. Atlas 2000: [27], [37], [38], [48], [57], [58], [67]

VISCACEAE

Viscum album L. *Mistletoe*

p 2

A parasitic shrub on trees; rather rare but locally frequent. The usual host plant is *Tilia x europaea* in Berkshire, and where it is abundant, the parasite can fill the entire inner volume of the canopy. Large trees can support more than 100 mistletoe individuals. In the Queen's garden at Frogmore, the abundance of mistletoe and the range of host plants is the greatest I have ever seen: *Robinia pseudoacacia*, *Salix alba*, *Quercus rubra*, *Juglans nigra*, *Tilia cordata*, *Populus alba*, *P. 'Robusta'*, *P. x canadensis*, *Syringa vulgaris*, *Betula pendula*, *Acer rubrum*, *A. saccharinum*, and various ornamental cultivars of *Malus*, *Prunus* and *Crataegus* are all hosts. Although *Quercus robur* is a frequent host of mistletoes in continental Europe, there are no Berkshire records. I have only once seen mistletoe on *Sorbus aria* in Berkshire (at Hall Place, Burchett's Green; see below). Where mistletoe infects apple trees, it has a substantial impact in reducing fruit production. It can kill infected branches, but seldom kills the whole tree.

Silwood Park: oddly, given the huge abundance of mistletoe on some of the neighbouring properties, this is one of Silwood's rarest wild plants. For many years, there was only a single individual in the tall lime tree on the edge of the Cricket Wicket; this plant produced an offspring in 2001. There are 2 plants in Lime trees on the edge of Ashurst Four Acre Field, opposite the Marist Convent, one of them appearing to grow on a beech (but a lime branch has infiltrated the canopy). Two parasites in the tall limes at the entrance to the stable yard at the back of the house were cut down by Ray Davies in 1981 when he topped the trees for safety reasons. Although the limes soon regained their earlier height, they were not recolonised by mistletoes until one plant was rediscovered high up in the canopy of the tree closest to the Stable Yard in January 2000 (a wonderful moment). By November 2003, the lime trees had 2 mistletoes each. The lime tree on the boundary between Ashurst Orchard and the churchyard was colonised by a single mistletoe soon before April 1997. A single plant in a tall lime tree opposite the Old Vicarage on the road to Ashurst. The two lime trees on London Road at Sandryde (now Princes Gate) support an increasing population of mistletoes; there were 5 plants in one and 4 in another in December 1979, this had changed to 6 and 1 by December 1991, but there was considerable recruitment during the 1990s so that the populations were 33 and 13 by January 2001, and 36 and 21 by November 2003. Intriguingly, all of the plants in the western of the two trees had gone by November 2004, vanished without a trace, while those in the eastern tree had grown in size and increased to 40 in number. It is as if the western tree had developed an immunity to the parasite. A third, younger lime tree, back from the road towards the buildings, had 3 juvenile mistletoes in November 2004. A new recruit in *Malus tschonoskii* by the gate to Drive Field in November 2004.

Ascot: mistletoe is extremely abundant in some of the lime trees on the boundary of Windsor Great Park from Blacknest Gate to Ascot Gate, down Mill Lane, and in the Park at Johnson's Pond and Breakheart Hill, and at Cranbourne Court on the Peanut Roundabout, but there are no records at all of mistletoe from the western side of Ascot. It grows on *Quercus rubra* at Johnson's Pond (1980-2004). Sunningdale Church, in three of the Flowering Crab Apple trees flanking the entrance path in December 2001 (but not in neighbouring *Malus floribunda* or *M. x purpurea*). Locally abundant in the cross-shaped avenues of limes in the centre of Swinley Park. At eye-level, in *Malus x purpurea* at 66 Upper Village Road in Sunninghill (2000-04).

East Berks: "Abundantly and luxuriantly on an avenue of lime-trees in front of Sir W. East's place, Hurley" (Druce). This is Hall Place at Burchett's Green, where there were many plants in an old Whitebeam (*Sorbus aria*) at the north-west end of the farm buildings in January 2001 (the only record of this host in Berkshire). Common on poplar and thorn at Park Place. Cookham on a crab-tree. Cliveden on black poplar (this is in v.c.24 Buckinghamshire). Parasitic on *Malus* or *Tilia*, less commonly on *Salix*, *Populus*, *Crataegus* or *Acer*. Local and in small quantity; decreasing. Sonning, Ruscombe Lake, Hurley, White Waltham, St Leonard's, Windsor, Shottesbrooke, Sandhurst, Burchett's Green. Recently at Beech Hill, Kings Mead in Reading, still at Park Place, Wargrave (where there is an enormous single individual in the lime tree by the church), Sonning, White Waltham, Knowl Hill churchyard, Scotlands, Foliejon Park, frequent in old limes at South Hill Park in Bracknell, Forest Lodge, Great Meadow Pond, Richardson's Lawn, Frogmore, Home Park and Windsor Castle, where there is a fine (143cm dbh) old Black Walnut *Juglans nigra* below the chalk cliff with 10 *Viscum* in January 2002. In two poplar trees (*P. x canadensis*) planted on the western edge of the green, and abundant in an avenue of poplars in the village Holyport in January 2000. In *Robinia pseudoacacia*, 5 big mistletoes on the edge of the car park of the *Bird in Hand* at Knowl Hill in 2001. On 3 trees of *Acer saccharinum* in Windsor in the middle of the

roundabout where the A308 meets the Long Walk, on New Year's Day 2002. Notably abundant on a range of host trees in White Waltham in February 2002. In *Robinia* and *Tilia* at Beech Hill [7064] in 2002. Two plants in a tall *P. x canadensis* on the far island at Hurley Lock [8284] in 2003. Very local, in only 4% (1km²). Atlas 2000: all squares.

West Berks: Woolstone [28], Watchfield [29], Hungerford and Inkpen [36], East Shefford [37], Denchworth [39], on *Crataegus monogyna*, *Fraxinus excelsior* and *Acer campestre* in Hamstead Marshall [46], Boxford and Welford Park [47], Harwell [48], on apple and *Robinia* in Abingdon [49], on willows at Appleton [40], Woolhampton and Midgham Park [56], Wyld Court, Hampstead Norreys and Bucklebury [57], Unhill Wood and Moulsoford [58], Aldermaston Court and on *Populus* at Mortimer [66], Purley, Englefield and Pangbourne [67]. There were 20 plants in the big lime tree in the churchyard at Aldermaston in 2001, and one in *Populus x canadensis* behind Thatcham Church. A special 'missing mistletoe' survey was undertaken on 4 Jan 2000 to make as sure as possible that there really wasn't any mistletoe in [38], [59], [50] or [68]. Knowledgeable local people in these places, who knew of mistletoe in sites as far away as Oxford, claimed never to have seen the parasite in [38] nor in the towns of Wantage [4088] or Wallingford [6089]. Two new records were made however: a huge mistletoe was discovered in an ornamental *Malus* in Bell Lane, Brightwell-cum-Sotwell [582908], and another plant in an old cooking apple tree in a garden on Upper Road, Kennington [520025]. So, although the plant is widespread, it is clear that mistletoe really is extremely uncommon on the Berkshire side of the Thames, especially on the chalk. Atlas 2000: all except [38], [68]

EUPHORBIACEAE

Euphorbia platyphyllos L. *Broad-leaved Spurge* ○ th 6

Arable fields and waste ground; very rare. An annual spurge found on calcareous clays or on lighter chalky soils, typically on field margins at low density where it has escaped the herbicide application. Known best from the capsule which has hemispherical (rather than cylindrical) papillae.

East Berks: a single plant at Queen's Eyot [912784] in 1988. On disturbed ground in Reading [710702] in 2000. Atlas 2000: [97]

West Berks: Hamstead Marshall [46] in 1906 (**OXF**), Bulls Lock [46] in 1965, Newbury [46] in 1984, Eynsham churchyard [40] in 1990, Marcham churchyard [49] in 1990. Atlas 2000: [49], [40]

Euphorbia x pseudovirgata (Schur) Soo *Twiggy Spurge* ● hp 5
Euphorbia virgata Waldst. & Kit. var. *pseudovirgata* Schur
Euphorbia x virgata auct., non Waldst. & Kit.
Euphorbia x uralensis auct., non Fischer ex Link
Euphorbia x podperae Croizat

East Berks: not in Druce. Dry railway banks, roadsides and waste places (as *E. uralensis*). Very local; Reading (**RDG**) in 1924. Cock Marsh (1958). The commonest of the aggregate in Berkshire. The leaves are about 4.5mm wide. This is the plant, or a genotype very like it, which is such a pestilential weed in North American pastures. A great deal has been spent on the search for biocontrol agents for the plant, and some of the work has been done at CABI at Silwood Park. It has never been grown outside the quarantine greenhouses. Atlas 2000: [88] (but with no specimen; I have never seen it at Cock Marsh, in all my visits there).

West Berks: rare in the Thames valley, absent elsewhere. Newbridge (**OXF**) [40] in 1936, Wallingford (**OXF**) [68] in 1938, Blewbury [59] in 1954, Marcham [49] in 1955, Tilehurst (**LAN**) [67] in 1956 (**LAN**), Wootton [40] in 1977.

Euphorbia cyparissias L. *Cypress Spurge* ● hp 5

It is very rare as a native on slopes in chalk grassland, but locally frequent as an alien garden escape in dry waste places. A common and invasive rockery plant, soon outgrowing its welcome, and hence frequently thrown out.
 NCV: CG 2

Silwood Park: a very rare escape on pavements in Cheapside village (1989-2000).

East Berks: dry grassland and waste places; locally frequent as a garden escape. Cookham pit, Moor Hall are possible native records. The record in the Wellington College List was probably not from Berkshire or was a garden escape. 8% (1km²). Atlas 2000: all squares

West Berks: on waste ground in villages throughout. First records include Sulhamstead Park [66] in 1897 and Brimpton Common (**OXF**) [56] in 1910. Other specimens from Sulham wood (**RDG**) [67] in 1912, Cholsey (**OXF**) [58] in 1923, Gozzards Ford (**OXF**) [49] in 1940, Sulham (**LAN**) [6474] in 1956, and East Garston (**K**) [3676] in 1962. On set-aside land at Frilford Heath North Field [447981] in 2001.

RHAMNACEAE

Frangula alnus Mill. *Alder Buckthorn* m 5

Rhamnus frangula L.

On wet heathland and on peaty soil in damp copses, local and rather rare, restricted to acid soils. Leaves entire and winter buds without scales distinguish this from *Rhamnus*.

NVC: W 1,5,16

Silwood Park: one of our few rare native tree species. Ray Davies attempted to increase the population in Merten's Acres by seed between 1978 and 1980 but without success. One of the last surviving native bushes was cut back to the ground (in error) on 18 June 1980 while cutting a ride through the thicket. The stump was clearly dead by 1981. A good young tree was discovered on 4 August 1980 during thinning below Paddy's Oak, behind the Refectory; the tree was felled (again in error) some time during 1981. It is still found in Nash's Copse under hazel and rhododendrons by the stream, but this is in danger of being overgrown. The individuals planted behind Southwood Halls in 1989 have done extremely well and were locally dominant by 1998.

Ascot: locally common on the edge of thickets by acid water in Buttersteep, Englemere Pond, Ascot Gate, and Sunningwell Bog. Excellent pollarded plants on Ascot Heath Racecourse, in the woody scrub between the fairways and in hedges near the cricket pavilion; locally abundant in the heather patch south of the Cricket Pavilion.

East Berks: this species is practically confined to the sandy peaty tracts of the Bagshot Sands in the south. Coleman's Moor, below Loddon Bridge, Earley, Cox's Wood, Finchampstead Ridges, Jouldern's Ford, Wellington, Sandhurst, Broadmoor. Damp woods on acid soils, in small quantity. Sindleshme Meads, Heath Lake, Wokingham, Pond Wood, Bracknell, Arborfield, Finchampstead Leas. Recently at Hartley Court, Longmoor Bog, Heath Lake, Wellington College, Edgebarrow, Pine Hill, Broadmoor Hospital, Wishmoor Bottom, Ascot Heath. Still on the eastern edge of Upper Lake at the Royal Military Academy Sandhurst (v.c.17). 2% (1km²). Atlas 2000: [76], [86], [96]

West Berks: Extremely local along the R. Kennet and on the commons of [56] and [66] (south of 75). Inkpen Common [36], Greenham Common (RDG) [46], Bishops Green, Wasing Wood, Turners Green and Bucklebury Common [56], Yattendon and Fence Wood [57], Burnt Common and Padworth Gully [66]. Atlas 2000: [29], [36], [46], [49], [56], [57], [66]

LINACEAE

Radiola linoides Roth *Allseed*
Millegrana radiola Mihi

th 7 ↓

A local speciality of bare sandy or peaty depressions on heaths where water has stood during winter. Tracks, ditches and edges of ponds. Now greatly reduced in abundance. Absent from the chalk, but it used to be locally common on the heathlands of the south.

Ascot: first recorded from Sunninghill by Sir Joseph Banks in 1773. Not seen since.

East Berks: Druce knew it from Heath Pool, Ambarrow, Riseley, Finchampstead, Long Moor, Bagshot Heath, Sandhurst, Broadmoor, Owls Moor. By Bowen's time it was rare and decreasing, close to extinction. The most recent records are from Rapley Lakes [8964] in 1948 and Bracknell [8866] in 1952, east of White Waltham [8575] in 1959, and Wellington College [8060] in 1963. Atlas 2000: no records, but suitable habitat is still to be found about Rapley Lakes, and might repay close scrutiny.

West Berks: restricted to the Kennet valley. Probably extinct at many of Druce's sites, currently restricted to heaths in [56] and [66]. Inkpen Common [36], Wickham [37], Newbury and Greenham Common [46] and [56], Snelsmore Common [47] in 1974 and 2003, Mortimer Common, Aldermaston Heath, Wokefield Common [6566] in 1985, Ufton Nervet and Padworth Common [66], Burghfield Heath [67]. Atlas 2000: [46], [47], [56], [66]

OXALIDACEAE

Oxalis corniculata var. ***villosa*** (M. Dieb.) Hohen *Yellow-sorrel*

• th 5

Told from the common var. *corniculata* by its bigger seeds (1.3-1.7mm rather than 1-1.3mm) with fewer (4-6 not 8-11), more obtuse ridges. The hairs on the capsule are a mix of glandular and simple hairs which are not, or scarcely, touching (not eglandular, dense and touching). Only recorded from four other British locations, it is frequent as a native in Turkey and from south-east Europe to south-east Asia.

West Berks: at the base of the church wall of St Leonard's, Wallingford [608891] on 29 May 2002 (E). Found by Roy Maycock, det. Mark Watson at Edinburgh.

Oxalis stricta L. *Upright Yellow-sorrel*
Oxalis dillenii auct., non Jacq.
Oxalis fontana Bunge
Oxalis europaea Jordan
Xanthoxalis fontana (Bunge) Holub

• hp 6 ↓

I suspect that several (perhaps even many or most) of the Berkshire records are *O. corniculata* (the distinction ‘stems procumbent’ versus ‘stems decumbent’ in the key does not instil great confidence). *O. stricta* is actually closest to *O. dillenii* from which it differs in never having white patches on the seeds, and pedicels erect in fruit (both species have capsules erect in fruit, but the pedicels of *O. dillenii* are patent or reflexed). Fruiting pedicels in *O. corniculata* are patent or reflexed in fruit in distinction to *O. stricta* which has fruiting pedicels erect in fruit, forming a cymose inflorescence.

East Berks: casual near the railway in Maidenhead pre-1897. Gardens and rubbish tips. Rare and often sporadic in Bowen (as *O. europaea*). Prospect Park Reading (1912), Whiteknights Park (1972), Coley (1977), Finchampstead Ridges (1917), Rapley’s Farm, Bracknell, Gardeners Green, Cookham tip (1958), Clewer (1960), Sunningdale allotments, Crowthorne. No recent records.

West Berks: Harwell [48], Marcham and Cothill [49], in the garden of the Chalet in Wytham Wood [40] in 1987, Thatcham [56], Blewbury [58] in 1976, Tilehurst [67] in 1974. Recently at Little Coxwell [281934]. Atlas 2000: [46], [48], [49], [40], [50]

Oxalis debilis Kunth *Large-flowered Pink-sorrel* ● gb 5
Oxalis corymbosa DC.
Oxalis debilis Kunth var. *corymbosa* (DC.) Lourt.
Oxalis debilis Kunth subsp. *corymbosa* (DC.) O. Bolòs and Vigo

The leaves are orange spotted (as in *O. articulata*) but they arise from a scaly bulb (rather than from a rhizome) and the flowers are pale (not deep) pink. Told from the other 2 pink-flowered bulb-producing species as follows: *O. decaphylla* has 5 or 10 leaflets (rather than 3), while *O. latifolia* has leaflets that are widest at the apex and which lack the submarginal orange dots.

Silwood Park: rare on the cinder pot stand at the Greenhouses in a derelict cold frame on 7 July 1998. Not seen since.

East Berks: not in Druce. Gardens, rare but persistent (as *O. corymbosa*). Sonning cemetery in 1963, Reading in 1967, Whiteknights Park in 1968. Recently at Wokingham, Waltham St Lawrence. <1% (1km²). Atlas 2000: [76], [77], [86], [87], [96]

West Berks: Pusey House [39] in 1971. Atlas 2000: [46], [67]

Oxalis latifolia Kunth *Garden Pink-sorrel* ● gb 5 ↓
Oxalis vespertilionis Zucc.

A bulb-possessing pink sorrel (cf. the much commoner *O. articulata* which has a tough brown rhizome), *O. latifolia* has leaflets that are widest at the apex and which lack the submarginal orange dots of *O. debilis*.

East Berks: not in Druce. Gardens, rare but persistent. Cookham (1961), Reading Old University (1964). No recent records.

West Berks: Downe House [57] in 1957, Kingston Lisle [38] in 1961. Atlas 2000: [36]

Oxalis tetraphylla Cav. *Four-leaved Pink-sorrel* ● gb 5
Oxalis deppei Lodd. ex Sweet

This is the “four-leaved clover” of gardens, leaves often with dark brown centres (the cultivar ‘Iron Cross’ has the coloured bands on the leaves entirely purple). A rare garden escape.

Ascot: a single outcast on Upper Village Road in Sunninghill on 1 September 2003. Escaped into paving in South Ascot churchyard in August 2004.

East Berks: waste ground in suburbia in Cookham Dean (1998). ‘Iron Cross’ by the M4/A33 Interchange [709702] in August 1999. Locally frequent on waste ground in Whitley [7270] in August 2003. <1% (1km²).

West Berks: recorded from Wantage and Newbury.

Oxalis incarnata L. *Pale Pink-sorrel* ● th-gb 5 †

This species is an annual with an erect aerial stem (branching above ground), arising from a bulb and producing axillary bulbs. The petioles of the other pink sorrels arise below ground.

East Berks: not in Druce. Gardens, very rare. Shinfield (1957), Tilehurst Road, Reading (1967).

Oxalis decaphylla Kunth *Ten-leaved Pink-sorrel* ● gb 5
Oxalis lasiandra auct., non Zucc.

East Berks: one of the few pink-flowered sorrels that is easy to identify, because it has 5 (or 10) rather than 3 leaflets.

East Berks: Maidenhead (1998). <1% (1km²).

GERANIACEAE

Geranium endressii group J. Gay *French Crane's-bill*

• hs 6

The *endressii* group consists of perennials with compact or creeping (but long persistent) rhizomes that are often thrown out of gardens, and survive on waste ground, rough grass, hedge-banks and ditches in villages and towns throughout Berkshire. The naturalised pink-flowered *Geraniums* have all tended in the past to be recorded as *G. endressii*, but it is clear that several different taxa are involved. The details of their distributions have yet to be worked out, but *G. endressii* is rare and *G. x oxonianum* is common. True *G. endressii* has the veins and petals the same shade of deep pink (not contrasting, as in several of the others; see below). The cultivar 'Wargrave Pink' has bright salmon coloured, distinctly notched petals and grows to twice the height of *G. endressii* when grown in full sun. It is of local origin, produced in 1930 by Waterer, having been found in the nursery (on the A30) by the foreman Mr G.W. Wright. **Geranium x oxonianum** Yeo *Druce's Crane's-bill* combines characters of *G. endressii* and *G. versicolor*, with funnel-shaped flowers, pink petals with a darker network of veins, notched at the apex; it is the most frequent outcast. The cultivar 'Claridge Druce' is a very vigorous, strongly hairy plant, with rosy pink petals up to 26 x 14mm. **Geranium x riversleaiannum** Yeo is a trailing hoary perennial grown for ground cover and hence often thrown out when it outgrows its welcome. The cultivar 'Russell Pritchard' has flowers of 3cm diameter of rich magenta and is the most commonly seen. See Yeo (1985) for details and keys to all the hybrids.

G. endressii is told from *G. x oxonianum* by its shorter style (measured in fruit, from the base of the stigma to the tip of the column) which is 2.5-3mm (rather than 4-6mm).

G. versicolor is told from *G. x oxonianum* by its trumpet rather than funnel-shaped flowers (i.e. the petals are curved outwards rather than straight at their tips), and by the petal ground colour which is white rather than pink.

G. endressii is told from *G. versicolor* by the colour of the petal veins; they are darker than the ground colour in *G. versicolor* (the same colour or paler than ground colour in *G. endressii*).

Geranium endressii cultivars and hybrids *French Crane's-bill*

• hs 5

Records for the aggregate are as follows, but most of these are probably not *G. endressii* s.s.:

East Berks: not in Druce. Established in a few hedge-banks near gardens; Knowl Hill (1963). Now one of the commonest garden escapes: Bisham, Sonning, Maidenhead, etc. 31% (1km²). Atlas 2000: all squares

West Berks: Kennington [50] in 1964, Tidmarsh [67] in 1946, Burghfield Common [66] in 1974. Now frequent and widespread. Atlas 2000: [28], [29], [36], [38], [46], [49], [56], [50], [66], [67], [68], [69]

Geranium x oxonianum Yeo *Druce's Crane's-bill* = **G. endressii x G. versicolor**

• hs 5

Probably the commonest of the garden escapes in this group. The petal veins may be darker or lighter (colourless and translucent) than the background pink. The most commonly grown cultivars are 'Claridge Druce' with dark-veined rose-pink flowers, 'A.T. Johnson' with silvery pink flowers, and 'Wargrave Pink' with salmon pink flowers. The flowers are funnel-shaped (not trumpet shaped; i.e. not strongly flared at the mouth).

Ascot: waste ground on Bridge Road in Sunninghill 1971-2004. South Ascot, Sunningdale and Ascot High Street in 2003.

East Berks: garden escape in Bulmershe and Whitley, by the R. Thames in Maidenhead in 2002 and Harvest Hill [8879], Cookham Dean [8785] and Drift Road [8975] in 2003.

West Berks: the hybrid is recorded from Purley Lodge [67] in 1926 (**RNG**), Bradfield [67] in 1962 (**LAN**) and Sutton Courtenay [59] in 1977 (**OXF**). On waste ground in Botley [4906] in 2002 and in ditches at Kingston Bagpuize [4098] in 2003.

Geranium versicolor L. *Pencilled Crane's-bill*

• hs 5

Low growing perennial with blotched leaves that are shallowly cut and broadly lobed. The trumpet-shaped flowers have white petals, but they are so strongly veined with rose-red that they look pink from a distance. This is the least common of the group in Berkshire.

East Berks: rare beneath a wall in Sonning in June 2002.

Geranium endressii J. Gay s.s. *French Crane's-bill*

• hs 6

Not common in Berkshire. The veins and the background are the same deep rose pink at the tip of the petal, so there is virtually no contrast between them, but at the base of the petal the veins are colourless and translucent. The leaves are wrinkled with pointed segments. Petals 3-4cm, notched. The style of the fruit is shorter (4-6mm not 2.5-3mm) than in *G. x oxonianum*.

East Berks: a rare garden escape in Reading, Maidenhead and Windsor, long persistent but not forming large patches.

West Berks: in Newbury, on waste ground near allotments in July 2001.

Geranium nodosum L. *Knotted Crane's-bill*

• hs 5

A perennial with swellings above the nodes, a 3 or 5 elliptic leaf divisions, which are toothed but scarcely lobed. Flowers are held in a diffuse inflorescence and have bright purplish pink slightly veiny and distinctly notched petals, and short hairs (< 0.2mm) on pedicels and peduncles.

West Berks: Sudbury House [29] in 1890 (**OXF**), Bessels Leigh [40] pre-1918 and Stanford Dingley [57] in 1961.

Geranium psilostemon Ledeb. *Armenian Crane's-bill*

• hs 5

A common garden plant (this and the hybrid 'Ann Folkard' are the tall "black-eyed" geraniums of herbaceous borders), rarely found on waste ground as an outcast.

East Berks: White Waltham in 2001

West Berks: Shrivenham [2388] in 1999, Kingston Bagpuize [4098] in 2003.

Geranium columbinum L. *Long-stalked Crane's-bill*

th 6 ↓

Fields, dry banks and stony places, hedge-banks; rather local and decreasing. Told from the other annual species by its long pedicels (more than 2.5cm) and glabrous or only sparsely hairy mericarps.

East Berks: Bisham, Wargrave, Sonning, Remenham, very fine in a lane between Farley Hill and Jouldern's Ford, Hurley, Waltham, Hurst, Twyford. Bowen considered it to be extinct at all of these sites. Recent records from Sandpit Lane, Farley Court, Crazies Hill, Wishmoor Bottom. <1% (1km²). Atlas 2000: [76], [78], [86], [97]

West Berks: occasional in [57] and [58] but rare and scattered elsewhere. Inkpen [36], Buckland [39], Chieveley and Boxford [47], Catmore [48], Hitchcopse pit [453997], Dry Sandford pit [465996], and on the railway at Grove [49], Cumnor and Upper Seeds Wytham [40], Stanford Dingley, Hermitage and Hurdle Shaw [57], Fair Mile, Kingstanding Hill and Streatley golf course (**LAN**) [58], Thrupp House, Sotwell and Castle Hill Sinodun [59], Sulham, Tilehurst and Purley [67]. Atlas 2000: [36], [39], [47], [48], [49], [40], [57], [58], [59], [67]

Geranium lucidum L. *Shining Crane's-bill*

th 5

Shaded hedge-banks, old limestone walls, gravel soak-aways and damp brickwork in towns. Local and rather rare. This plant behaves much more like an alien than a native in Berkshire, and is not recorded from any semi-natural habitats. It is long-persistent, however, in some of its locations.

Silwood Park: seedlings in the gravel strip behind the CABI building on 13 September 2004; this was the first record from Silwood, despite repeated searches.

Ascot: locally common in Sunninghill village, especially on Upper Village Road. There is a large colony on lane sides, centred on the derelict house at No. 21 Exchange Road which has been there since at least 1970. Also in South Ascot.

East Berks: Wellington College (1894), Sindlesham, Loddon Bridge, Hurst. Shinfield (**RNG**) in 1955, Sandford House (1962), Woodley (**LAN**) in 1957, Reading [7272] in 1982. Recently from Shinfield Court, central Reading, Sindlesham Mill, Woodley Green, White Swan Lake, Winnersh Station, The Throat, Westcott, Wellington College, Martin's Heron, Shottesbrooke, White Waltham, Long Lane, Warfield Park, Bisham Abbey, Hillgrove Wood, St Luke's Maidenhead, Sheephouse Farm, St Leonard's Hill, Forest Lodge, Boulter's Lock. Common on the banks of the sunken lane from the Aircraft Museum to Sandford Mill [777729] in 2000, and in the car park of Knowl Hill village hall [824794] in 2003. 5% (1km²). Atlas 2000: all except [78]

West Berks: Buscot [29], Inkpen and Kintbury [36], Newbury and Greenham [46], Welford [47], on the steps of the gazebo, and carpeting the ground beneath tall conifers at Kingston Bagpuize House and Abingdon [49], Cumnor and Jarn Mound [40], Hermitage [57], Hagbourne and Blewbury [58], South Hinksey and Kennington [50], Round Oak and Tadley [66], Bere Court, Pangbourne [67]. Atlas 2000: [29], [36], [37], [46], [40], [56], [58], [50], [66]

Geranium phaeum L. *Dusky Crane's-bill*

• hs 5 ↓

Hedges and rough grass near houses; an escape from cultivation.

East Berks: very rare. Sonning (1800), Remenham Lane. Crowthorne (**LAN**) in 1958, Wellington College (1960), Binfield Lodge (1965). <1% (1km²).

West Berks: Boxford [47] in 1918, Frilford [49] in 1960, Stanford Dingley [57] in 1960, Bagley Wood [50] in 1963, naturalized along with white-flowered forms in the grounds of the Old Rectory at Burghfield [6668] in 2004.

Erodium moschatum (L.) L'Hér. *Musk Stork's-bill* th 5 ↓
Geranium cicutarium L. var. *moschatum* L.

A casual of waste places, very rare.

East Berks: not in Druce. Rare casual at Hurley (1966).

West Berks: First record from Mortimer [6764] in 1891, Round Oak (RNG) [66] in 1891, Abingdon [49] in 1918, Downe House [57] in 1966, The Holt Abingdon [4997] from 1976 to 1980.

ARALIACEAE

Hedera helix L.
Hedera helix subsp. *hibernica* *Atlantic Ivy* ● m 9

Told by its pale, yellowish brown (not whitish) hairs on the underside of the leaves, which all lie parallel to the leaf surface (i.e. none projecting away from the surface). The leaves are typically bigger than those of Common Ivy (> 8cm diameter) especially in the garden cultivars, and the plants are seldom capable of climbing. The cultivar 'Hibernica' *Irish Ivy* is the most commonly seen as a garden outcast.

East Berks: on the ground on waste land in Reading, Windsor and Maidenhead.

West Berks: on waste ground in Faringdon, Hungerford and Newbury in 1999.

Ornamental ivies (mainly **H. colchica** (K. Koch) K. Koch) are widely used as ground cover in urban landscaping schemes in Bracknell and Reading, and on the Science Park at Silwood, but these are uncommon as bird-sown garden escapes or outcasts.

APIACEAE

Eryngium campestre L. *Field Eryngo* ○ hs 7 †

A *Red Data Book* species, restricted to three seaside grasslands in Devon, but now considered to be an alien. It is a common contaminant of continental European seed mixtures, however, and can spring up as a casual after reseeded. Worth looking out for on roadside landscaping schemes and other places where foreign seed might be used.

West Berks: casual in a field by the railway at Hermitage [57] in 1934 (det. W.H. Pearsall).

Anthriscus caucalis M. Bieb. *Bur Chervil* th 5 ↓
Cerofolium anthriscus Beck
Anthriscus vulgaris Pers., non Bernh.
Anthriscus neglecta Boiss. & Reuter ex Lange
Anthriscus scandicina (G. Weber) Mansf., nom. illegit.

An elegant plant, preferring dry sandy soil, and found in bare places in dry grassland, arable fields, limestone walls, waysides and dry hedge-banks; local, rare and sporadic. It has small fruits (< 5mm) covered in hooked bristles.

Ascot: no records. Not in Silwood Park.

East Berks: Marlow, Saunder's Lane, Wokingham, Earley Court Park. Reading Abbey (RNG), Woodley. <1% (1km²) Atlas 2000: [77]

West Berks: occasional in the Northern Loop and on the Golden ridge (north of 95 and west of 50). Faringdon [29], Stanford-in-the-Vale, Southmoor, Longworth pit, and Buckland Warren [39], Sutton Wick, Drayton (OXF) in 1977, Frilford, Frilford Heath golf course, Marcham, Abingdon and Cothill [49], Dry Sandford and Farmoor [40], Hermitage [57], perhaps extinct at Radley (RNG) [59], Newbury [46], Southcote [47]. Atlas 2000: [29], [36], [39], [49], [40], [57]

Anthriscus cerefolium (L.) Hoffm. *Garden Chervil* ● th 5 ↓
Cerofolium sativum Bess.
Scandix cerefolium L.

A rare casual of waste ground; told from *A. sylvestris* by the well differentiated beak on its fruits and by its pubescent rays.

East Berks: hedge near Windsor, probably from a garden (1805). Bray and Cookham (1918). Whiteknights Park [77] in 1945. Atlas 2000: no records

West Berks: Kintbury [36] in 1957. Atlas 2000: [36]

Scandix pecten-veneris L. *Shepherd's-needle* ○ th 4 ↓

Formerly a weed of heavy calcareous arable soils that dry out in summer, but now almost eradicated by herbicide use. Sometimes almost the only weed species, but in other places part of a diverse community with *Kickxia elatine*, *Papaver argemone*, *Legousia hybrida*, *Petroselinum crispum*, *Ranunculus arvensis* and *Valerianella dentata*. In Druce's time it was "very common and generally distributed. Cornfields, too frequent (1809); everywhere about Marlow (1843)". By Bowen's time it was "locally frequent but decreasing. Sonning (1963)". It is now scarce in Britain.

NVC: OV 15

Ascot: no records

East Berks: local and rare: at the edge of a cornfield north of Drift Road [891753] (1979-2004); the pub next to the site (known locally as The Cider House) burned down under mysterious circumstances in 1998, and was eventually replaced by two new detached houses. Mount Skippet. Formerly in Reading (**RNG**) in 1831, Maidenhead (**HULL**) in 1923, Sonning (**RNG**) in 1963. <1% (1km²). Atlas 2000: [77], [87], [88]

West Berks: a curious central distribution, absent from the Kennet valley and rare in the Thames valley. Fair Mile [58] in 1968, Didcot (**RDG**) [59] in 1939, Tilehurst (**LAN**) [67] in 1956. Atlas 2000: [28], [36], [38], [39], [48], [57], [58], [50], [67]

Scandix stellata Banks and Sol. ● th 5 †

Scandix pinnatifidum (Vent.) Thell.

West Berks: a rare bird-seed casual found by Druce on rubbish tips at Grandpont [50] in 1892.

Myrrhis odorata (L.) Scop. *Sweet Cicely* ● hs 5 ↓

Scandix odorata L.

Another of those aliens that is much commoner in the north of England and in Scotland, presumably because the climate of Berkshire is too dry (*Epilobium brunnescens* and *Mimulus guttatus* are others). Much grown in herb gardens for its wonderfully aniseed-scented leaves, but seldom escaping. Its seeds have the distinction of being the largest of any British herb (at 35mg, only a few tree seeds are heavier).

NVC: MG 1

East Berks: no records

West Berks: a rare casual or garden escape. Purley (**RDG**) [67] in 1927, in a farm gate at South End [57] in 1953, in an abandoned garden at Hyde End Mill [56] in 1987. Atlas 2000: [28], [56], [57]

Smyrniolus olusatrum L. *Alexanders* ○ hs 4

Hedge-banks, roadsides and gardens near houses. Rare, but persistent. This is an alien with a very interesting distribution in Britain; it is locally dominant on lane-sides, banks and cliffs on many parts of the coast but almost never extends more than a few kilometers inland. It is increasingly common inland in south-western Britain, but it is certainly not increasing rapidly in Berkshire at present.

NVC: OV 24

Ascot: long persistent north-west of the Peanut Roundabout [935721] despite annual mowing; it grows on the western verge of the B383, about 200m beyond the north-west exit from the roundabout, under overhanging trees. It is conspicuous in years when the verge is mowed sufficiently late to allow it to flower, as on 14 April 1998, 20 April 2000 (it was cut early in 1999) and 10 April 2001. The single clump is long-lived but not spreading, presumably because it is always mowed before it ripens its seed. It grows here with *Petasites japonica*, another uncommon alien.

East Berks: Druce knew the plant from Windsor Castle, but Bowen could not find it there. Sonning Halt in 1953, Reading in 1960, Ruscombe in 1964, on the railway at Berkeley Ave., Reading in 1952 and 1976. These populations had gone by 1990. Finchampstead, by the church [7963] in 1999. 1% (1km²). Atlas 2000: [76], [97]

West Berks: very local and rare, but in abundance in lanes near Southcote [67] pre-1897, and again in 1953 and 1987. Ufton Nervet [66] in 1962 (still there in 2001 on the lane side, and dominant in a corner of the churchyard), Bradfield [67] in 1963, Calcot (**LAN**) [67] in 1956, Aldermaston [65] in 1959, Didcot [59] in 1976. On the riverside path where the Pang flows through Moor Copse [67] in 2002. Atlas 2000: [46], [66], [67]

Smyrniolus perfoliatum L. *Perfoliate Alexanders* ● hs 5

An excellent garden plant for dry shade, after earlier-flowering species like hellebores, primrose and snowdrops have given up. It has brilliant lime green foliage, and people sometimes mistake it for a *Euphorbia*. A short-lived monocarpic plant, it self-sows freely 3 years after the seeds are sown. Abundantly naturalized in Kew Gardens, just down the river from us, where it forms dense clouds of golden yellow amongst the bluebells in open woodlands (they regard it as a weed). It does much less well in Berkshire, but it is frequent in the woodland garden at Wisley (just over the Surrey border).

East Berks: very local and rare, on open ground in a woodland at Farley Court [7564], where it has been for many years in fluctuating numbers; still there in 2002. <1% (1km²). Atlas 2000: [76]

West Berks: self-sown in the grounds of the Old Rectory at Burghfield [6668] in 2004.

Pimpinella major (L.) Huds. *Greater Burnet-saxifrage*
Pimpinella saxifraga L. var. major L.

hs 6 ↓

Oak woods and thickets on clay soils; local and decreasing, confined to north Berkshire. Told by its hollow stems and larger fruits (3-4mm not 2-3mm).

NVC: MG 1

East Berks: extinct at its only site. It was very local at Wargrave in Druce's time.

West Berks: Appleton Lower Common and Wytham [40], and extinct at Ashridge Wood [47], Ilsley [48], Cumnor [40] and Burghfield [66]. There is a field record from Hid's Copse [40] in 1985. Atlas 2000: [40]

Sium latifolium L. *Greater Water-parsnip*

hel 7 ↓

River-, brook- and canal-sides on nutrient-rich mud. A local speciality, now enormously depleted by river traffic and bank-side development. Druce considered the plant to be "locally common, occurring at intervals all along the Thames". By Bowen's time it was "mostly in the Thames valley where it is local, rare and decreasing". Now it is just plain rare. Riverside bays, protected from boat waves, need to be constructed to grow this and other bulky aquatic rarities.

NVC: S 4,18

East Berks: Reading, in the largest pond at the foot of Cookham Down, ditches by the Thames at Maidenhead, Wargrave, Sonning, Aston, Windsor (1805), very fine near Bolney and Shiplake. Owlsmoor (1963) and Cock Marsh (1956); confined to the Thames with one outlying site at Broadmoor; extinct at 5 out of its 7 sites. <1% (1km²). Atlas 2000: [88]

West Berks: confined to the Thames, and extinct at all but a handful of its original sites. By the canal near Wantage and Uffington [38], north of Harrowdown Hill [30], Marcham and very luxuriant at Abingdon [49], ditches by Radcot Bridge in 1805, Appleton, Harts Weir, Newbridge and the ditches below Wytham [40], ditches on Blewbury Common and Moulsoford [58], Radley, Culham, Sutton Courtenay and Wittenham [59], Kennington [50], Pangbourne (RDG) in 1926, Tilehurst, Sulham Woods (RDG) in 1930 and Tidmarsh [67], Wallingford [68]. Bowen had records from Wytham Meads [40] and Donnington Bridge [466687] in 1969. The best place to see the plant these days is just south of the Thames in Wytham Meads Ditches, centred on [465098], where there were four groups of plants in 2004, growing with *Oenanthe fistulosa*, *Samolus valerandi* and *Hottonia palustris*. Atlas 2000: [49], [40], [67]

Berula erecta (Huds.) Coville *Lesser Water-parsnip*

hel 7 ↓

Sium erectum Hudson

Siella erecta (Hudson) Pim., nom. illegit.

Ditches in water meadows, especially in the Thames valley. Druce thought it "rather common and widely distributed", but Bowen had it as "occasional, clearly much less common than formerly". Told from *Apium nodiflorum* by the presence of a ring mark on the petiole, some way below the lowest pair of leaflets, and from *Sium latifolium* by the much smaller fruits with less pronounced ridges.

NVC: A 2,3,17; M 22; OV 26,30,32; S4,S5,S12,S23,S25; W 5

Ascot: no records

East Berks: Shiplake, Wargrave, Windsor, Jouldern's Ford, Coleman's Moor, Twyford, Ruscombe, Shurlock Row, Earley, Wokingham, Waltham, Wellington College. Rare by the Thames with scattered outlying records by the R. Loddon in Earley [758697] in 1977. Recently at Aston, Widbrook Common and Shepherd Meadow. <1% (1km²). Atlas 2000: all except [78], [86], [96]

West Berks: recent records include a pond at Beckett Park, Bourton and Shrivenham [28], by the R. Ock from Watchfield to Little Coxwell [29], water meadows at Hungerford [36], R. Lambourn at Lambourn [37] and Hunts Green [47], Grove [38], by the Thames at Buckland Marsh and by R. Ock [39], water meads at Boxford [47], the canal at Aldermaston [56], North Farm [59], in the R. Pang at Pangbourne [67]. Atlas 2000: all except [48], [57], [50], [66], [68], [69]

Oenanthe fistulosa L. *Tubular Water-dropwort*

hel 7 ↓

Wet ditches, riverside meadows, marshy fields, pools; rather local. Fond of still or stagnant water and often associated with *Hydrocharis*, *Lemma*, *Callitriche obtusangula* and *Stellaria palustris*. Told from the other *Oenanthe* species by its petioles which are longer than the divided part of the leaf, and by the globose ultimate clusters of ripe fruits.

NVC: MG 13; OV 29; S 4,23

Ascot: no records

East Berks: in water meadows and by ditches in the Thames Valley; ponds at the foot of Cookham Down (this is the Cock Marsh site), Sandhurst, Culham, Aston, Hurley, Wargrave, Sonning, White Waltham, Coleman's Moor, Ruscombe, Twyford, Windsor Park, Old Windsor, Bisham. Bowen thought it "more frequent than the foregoing records suggest". Remenham, Pond Wood, Maidenhead, Cookham, the Fritillary field at Stratfield Saye [705633]. Recently from Loddon Court, Dinton Pastures, Crazies Hill, Cock Marsh, Widbrook Common. There is an outlying recent record from Blackwater meadows at Sandhurst. 1% (1km²). Atlas 2000: all except [86], [96], [97]

West Berks: occasional in the Thames valley and rare in Kennet valley: Compton Beauchamp [28], Radcot Bridge, St Johns Lock, Little Coxwell and Longcot [29], Hungerford [352681], Radcot Lock [295002], Frilford, Marcham Church [452968], Barrow Farm and Drayton [49], Wytham ditches, Newbridge and Swinford [40], Radley [59], Streatley and Cholsey [58], Little Wittenham reserve [59], Iffley meadows and Kennington pool [50], Pangbourne (RDG and LAN) and Theale [67], Wallingford [68]. Atlas 2000: all except [37], [38], [47], [48], [57], [68], [69]

Oenanthe silaifolia M. Bieb. *Narrow-leaved Water-dropwort* hs 6 ↓

Wet, low-lying water meadows cut for hay; very local and rare by the R. Thames (close to extinction, if not extinct already). Fruits less than 4mm and bracts usually absent. Rays thick (>1mm at maturity) and stems hollow and straw-like.

NVC: S 23

East Berks: no records (the old record from Eton was on the Buckinghamshire (v.c.24) side of the river).

West Berks: pre-1897 records from Binsey (OXF), Eynsham meads and Wytham Meads (OXF) [40], Kennington (OXF) [50], Pangbourne [67]. The only post-1950 record is from Newbridge (OXF) [40] in 1966. Worth a careful search of Wytham Meads in June. Atlas 2000: [40]

Oenanthe pimpinelloides L. *Corky-fruited Water-dropwort* hs 6 †

East Berks: commons and rough ground on clay. A single plant on a stabilized dump in Reading [734739] in 1985 (RNG). Site bulldozed in 1988. Atlas 2000: no records

Oenanthe lachenalii C.C. Gmel. *Parsley Water-dropwort* hs 6 ↓

A local speciality of rough water meadows, marshes by ponds on clay, fens and bogs, very local. Told from *O. pimpinelloides* by its unthickened rays and pedicels less than 0.5mm thick, and from *O. silaifolia* by the presence of bracts.

NVC: M 13,22; S 4,25

East Berks: no records

West Berks: St Johns Lock [29], Buckland [39], Frilford Heath, Cothill fen (LAN), meadows by Noah's Ark Inn, and Barrow Farm fen [49], from the saline spring at Marcham (RNG) [49] in 1962, Purley (RDG) [67] in 1926. Still at 3 sites around Cothill. Atlas 2000: [49], [40], [59]

Oenanthe fluviatilis (Bab.) Coleman *River Water-dropwort* hyd 6
Oenanthe phellandrium Lam., nom. illegit. var. *fluviatilis* Bab.

A species of fast-running streams and rivers, often growing in chalk streams with *Ranunculus penicillatus* subsp. *pseudofluitans*, where it forms large cylindrical masses; avoiding stagnant water. Druce found it "abundant in shallow places in all our larger streams. Too abundant and generally distributed to need enumeration of the localities" but it was much reduced by Bowen's time, and is no longer abundant in the Thames. Records for the Scare Plants Atlas were commoner in urban and suburban rivers than in agricultural areas. Like *O. aquatica* but its fruits are larger (more than 5mm), but this is a shy flowerer, so it is best identified on leaf shape (both the submerged and the aerial leaves are broader, the latter much less parsley-like than in *O. aquatica*).

East Berks: below Loddon Bridge in Earley (RNG) [7671] in 1932; Smallmead [7169] in 1972. <1% (1km²). Atlas 2000: [76], [77]

West Berks: all but restricted to the R. Kennet and the adjoining canal, with outliers from the R. Cole at St John's Lock, Lechlade [2298], and the Northern Loop at Abingdon [49], Kennington [50], by the Thames opposite Mapledurham (RNG) in 1923 and Pangbourne [67]. Hungerford and Kintbury [36], Newbury and Hamstead Marshall [46], Thatcham (RNG) [56], Stanford Dingley [57], Aldermaston Wharf [66], Theale (LAN) and Holybrook [67]. There are 1991 records from Holy Brook [694715]. Much reduced. Atlas 2000: [46], [40], [56], [50]

Oenanthe aquatica (L.) Poir. *Fine-leaved Water-dropwort*
Phellandrium aquaticum L.

hyd 6

Cattle trampled, stagnant ponds on nutrient-rich mud in sun or partial shade; local in small quantity and decreasing (as *Oe. phellandrium*). This is a robust, upright plant (not a floater) with filiform submerged leaves; its umbels are leaf opposed (like *O. fluviatilis*) but its fruits are small (less than 4.5mm). Leaves attacked by the beetle *Prasocuris phellandrii*.
NVC: A 11; S 23

East Berks: ponds at the foot of Cookham Down in 1843 (this is now known as Cock Marsh, and the plant was still there in 2004), Bulmarsh, Windsor, Wargrave, Ruscombe, Whiteknights Park, Remenham, Broadwater, Waltham, Shottesbrooke, abundant at Coleman's Moor, Hurst, Winkfield, abundant in a wood between Shurlock Row and Shottesbrooke, near Henley. Ruscombe, Cock Marsh, Thrift Wood, Twyford pit, Ruscombe. Rare and declining. Widbrook Common. Scattered in the Thames valley, absent or extinct elsewhere. Recently seen in a small, part-shaded pond in the eastern arm of Beenham's Copse at Binfield [857741] in 2000, and frequent in the shady pond on Long Lane at [878758] in 2002. 2% (1km²). Atlas 2000: [77], [87], [88]

West Berks: restricted to the east. Lockinge Park lake [48] in 1979. Beech Hill and Knights Farm, Pingewood [66], Pangbourne (RDG) in 1926, a pool at Sulham, Southcote and Theale pits [67]. Atlas 2000: [57], [66], [67]

Aethusa cynapium subsp. **agrestis** (Wallr.) Dostál
Aethusa cynapium L. var. *agrestis* Wallr.

• th 7

It is worth looking for this plant on arable land. It is smaller (stems to 20cm) with the longest pedicels about as long (not less than half as long) as the bracteoles, and mostly shorter than the fruits (not twice as long). It is probably an alien introduction. The following locations were all recorded before 1897.

East Berks: Maidenhead, Twyford, Windsor, Binfield, Finchampstead

West Berks: Cumnor, Buscot, Wootton, South Hinksey, Lockinge, Wantage, Appleford, Wittenham, Yattendon, Bradfield, Theale, Newbury.

Bupleurum rotundifolium L. *Thorow-wax*

○ th 7 †

Cornfields, chiefly on gravelly soil, sporadic, and never more than locally frequent. Extinct since the 1960s according to Stace. The umbels have 4 to 8 rays (not 2 or 3).

East Berks: known only from Reading in 1924 and 1930 (RDG and RNG).

West Berks: extinct, but once local at Buckland [39] in 1863 (OXF), with other pre-1897 records from Wickham [37], Tubney [49], Bablock Hythe Ferry and Wootton [40], Lollington Hill, Blewbury, Streatley and Cow Down at Compton [58]. Other records were Wytham Mill [40] in 1906 (OXF), Cothill [49] in 1913 (RNG), Cholsey [578851] in 1954 and Riddle Hill [5484] in 1955, Tilehurst [676749] in 1956. Atlas 2000: no records.

Bupleurum falcatum L. *Sickle-leaved Hare's-ear*

• hs 7 †

West Berks: an unlikely record. The sheet in RNG from Greenham in 1915 may be mislabelled.

Bupleurum tenuissimum L. *Slender Hare's-ear*

th 7 †

West Berks: collected by J.S. Henslow at Cholsey [5785] in July 1836 (det. Bowen) (WAR).

Bupleurum subovatum Link ex Spreng. *False Thorow-wax*
Bupleurum lancifolium auct., non Hornem.

• hs 7 ↓

Casual in gardens; often confused with *B. rotundifolium*. The umbels have 2 to 3 rays (not 4 to 8).

East Berks: not in Druce. Reading (1957 and 1963), Wokingham (1955).

West Berks: a bird-seed alien recorded from Cothill [49] in 1908, Abingdon (OXF) [49] in 1918, Snelsmore [47] in 1924, Downe House [57] in 1966, Cholsey [58] in 1978.

Apium graveolens L. *Wild Celery*

hs 6 ↓

Apium graveolens L. subsp. *dulce* (Miller) Lemke and Rothm., nom. inval.

Marshy meadows and brook sides, very local as a native plant. Saline ditch and waste places. Very local. Cultivated celery, *A. graveolens* var. *dulce* is a common garden and allotment crop, also found as culinary waste on tips. Celeriac, *A. graveolens* var. *rapaceum*, is grown for its swollen corms.

NVC: S 4,14,23

East Berks: there is a single record of var. *dulce* from Smallmead tip [7169] in 1971.

West Berks: a local speciality; south of Marcham [49] in 1881, and again in 1964 when there were about 100 plants. This celery-filled ditch is all that remains of the once-celebrated saline spring (one of Berkshire's most unusual plant communities). In 2000 there were about 200 plants left in the population at Manor Farm, Marcham [453960]. Also as a garden escape at Cumnor [40] in 1865. Other 20th century records include Abingdon [49] in 1921 (although this may be the Marcham site), Silchester and Padworth Common [66] but with no specimens. Swinford Meadow [40] in 1985. Atlas 2000: [49], [40], [66], [67]

Apium repens (Jacq.) Lag. *Creeping Marshwort*

hel 7

Sium repens Jacq.

Apium nodiflorum (L.) Lagasca subsp. *repens* (Jacq.) Bonnier

A great rarity of damp places by rivers, generally flooded in winter. Associates include *Alopecurus geniculatus*, *Galium palustre*, *Glyceria notata*, *Juncus articulatus*, *Mentha aquatica*, *Myosotis scorpioides*, *Ranunculus flammula* and the ubiquitous *Apium nodiflorum*. Spreads by runners at, or just below, the soil surface. Told from *A. nodiflorum* by its having more bracts (3-7 rather than 0-2) and the peduncles are longer than adjacent rays and petioles. DNA work shows that they are distinct species and that, at the famous Port Meadow site in Oxford at least, there are no hybrids.

East Berks: no records.

West Berks: a *Red Data Book* species, first collected by R.A. Finch at Chilswell Farm [4903] in 1962. Now known from Binsey Green [4907], where the population is being monitored each year by the *Ashmolean Rare Plants Group*. They found 6 patches in 1999 and 5 patches in 2000, all of them flowering (the missing patch may have succumbed to competition from *Carex riparia*). There were 80 flowers in the largest patch in July 2000, and 14 in August 2001 (Susan Erskine, personal communication).

Apium inundatum (L.) Rchb.f. *Lesser Marshwort*

hyd 6 ↓

Sison inundatum L.

Pools on heaths, ditches; more frequent in the heathy districts. Much declined since Druce's time, and Bowen writes "once widespread, now very local". The lower leaves are 2 to 3 pinnate (not 1 pinnate as in *A. nodiflorum*), with filiform segments if submerged.

NVC: A 11; OV 35; S 5

Ascot: extinct, formerly at Virginia Water and Sunningdale.

East Berks: Wellington College, Swallowfield (RNG) in 1892, Bulmarsh, Coleman's Moor, Bearwood, Bagshot Heath, Finchampstead, Riseley, Hurst Green, Easthampstead, Sandhurst, Blackwater, Long Moor. Extinct at all of these sites by Bowen's time. South Lake [755722] in 1972, Cock Marsh, 1998. <1% (1km²). Atlas 2000: [77], [88]

West Berks: once quite widespread in Kennet valley, now all but confined to [57] and [66]. The following sites are probably all extinct: Walbury Camp pond [36] in 1897 and 1939, Hamstead Marshall, marshes near Newbury, Greenham Common [46], near Abingdon [49], Wytham meadows [40], Oare Common [57], Moulsoford [58], Radley [59], Bagley Wood (OXF) [50] in 1820, Burghfield, Mortimer, Silchester (OXF), Three Firs (RDG) in 1927, Aldermaston Decoy and Soke [66]. Recent records from Three Firs Pond (LAN) [652662] in 1970, Faircross Farm, Hermitage [5072], and 10 plants on Decoy Heath [612635] in June 2003. Atlas 2000: [57], [59], [66]

Petroselinum segetum (L.) W.D.J. Koch *Corn Parsley*

hs 8 ↓

Sison segetum L.

Carum segetum (L.) Benth. ex J.D. Hook.

A rare native of dry arable fields, mostly on calcareous soils, waste ground and dry, sunny hedge-banks; very local. It looks a bit like *Sison amomum*, but it lacks the paraffin-like smell, has more basal leaflets (4-12 pairs rather than 2-5), and has rays of very unequal lengths. The very smart, neatly cut, dark grass-green leaves have a highly distinctive jizz, once learned.

Ascot: no records

East Berks: local and rare at Wargrave, near The Dreadnought at Sonning, Sonning Cutting, White Waltham. Meadow Farm Road Cookham (1956). <1% (1km²). Atlas 2000: [76], [77]

West Berks: Snowswick Farm [220962], Watchfield [242903], Upper Lambourn and Wantage [38], Hatford [344948], Peasemore [47], Chilton [48], Milton [483914], Drayton, Cothill and Sutton Courtenay [49], Wootton and Swinford [40], Woolhampton and Aldermaston pits [56], Hampstead Norreys [57], Riddle Hill [5485], Blewbury, Aston Upthorpe reservoir [5585] and Cholsey [58], Sinodun Hills, Didcot, Appleford and Wittenham [59], Calcot [67], Crowmarsh Gifford [6287]. Recently from Tadley Common [605625] where topsoil had been stored on waste ground of a former gravel pit; June 2001, and Home Farm, near Burghfield [691636] on the margin of a set-aside field with *Kickxia elatine* and *K. spuria* in August 2003. Atlas 2000: [29], [38], [39], [47], [48], [49], [40], [57], [58], [59], [66], [67]

Falcaria vulgaris Bernh. *Longleaf* ● h 7 †

A classic chalk grassland plant in Central Europe along with *Eryngium campestre*; a rare alien with us.

West Berks: not in Druce. In arable land at Wallingford [48] in 1923 and 1950, Stone Farm Longcot [29] in 1950, railway bank at Hermitage [57] in 1967.

Carum carvi L. *Caraway* ○ hs 6 †

Waste places, sown fields and rarely in meadows, as a rare casual. Grown in herb gardens where it self-sows freely, and hence found on tips as a garden outcast.

East Berks: first record 1711 from Reading. Shepherds Hill [77] in 1949

West Berks: by the railway at Didcot [59] in 1897, Burghfield Meadows [66] in 1897.

Carum verticillatum (L.) W.D.J. Koch *Whorled Caraway* hr 7 †
Sison verticillatum L.

A very rare member of the *Juncus effusus*, *J. acutiflorus*, *Galium palustre* rush pasture. A very long way from its other British stations in Cornwall, south-west Wales and south-west Scotland which are exclusively western.

NVC: M 23

East Berks: found by Alan Morton and Jo Francis in a damp meadow at Winkfield [911721] in 1992 (RNG), but the site was destroyed the following year. Given the isolation of the site from the main range of the species (see above), it is likely that the plant was unintentionally introduced rather than native at Winkfield.

West Berks: no records

Tordylium maximum L. *Hartwort* ● th 6 †

West Berks: hedge-banks. near Sheepstead House Frilford [4597] in 1870. No specimen or expert determination. Extinct by Druce's time.

Torilis arvensis (Huds.) Link *Spreading Hedge-parsley* ○ th 7 ↓
Caucalis arvensis Hudson

A scarce plant in Britain, and a local speciality of dry arable fields, once frequent but now rare. It is an annual or biennial weed of winter-sown cereal crops on heavy calcareous soils, also found on waste ground in open, well drained situations. Poor dispersal, often found close to the parent plant. Susceptible to herbicides and a poor competitor in fertilized crops. Often found with *Euphorbia platyphyllos* and *Ranunculus arvensis*. The fruit has straight spines that are minutely hooked at the end (unlike the curved spines of *T. japonica*).

East Berks: "rather frequent especially on chalk soils" in Druce's time but "local and uncommon" by Bowen's. Wargrave, Marlow, Shinfield, Swallowfield, Sonning, Remenham, Hurley, Bisham, Cookham, Bray, Maidenhead, White Waltham, Windsor. Between Ruscombe and Waltham St Lawrence, Maidenhead, Cookham. Rare in the western section of the Thames valley between Reading and Hurley. 2% (1km²). Atlas 2000: [88]

West Berks: scattered on the eastern chalk around [58] with outliers at Kintbury [36], Membury airfield [37], Chaddleworth [37] and Harrowdown Hill [30]: Chilton [48], Blewbury and Cholsey [58], Appleford [59], Burghfield [66]. Found by Ian Curtis in an arable field margin at Swannybrook Farm near Kingston Bagpuize [408966] in 2002. Atlas 2000: [36], [37], [47], [48], [49], [56], [58], [59]

Torilis nodosa (L.) Gaertn. *Knotted Hedge-parsley* th 5 ↓
Tordylium nodosum L.
Caucalis nodosa Scop.

Dry sunny banks, pavements, and borders of fields on gravelly soil; local. It has very distinctive dimorphic fruits; one with spines and one tuberculate.

East Berks: Windsor, Cookham Green, White Waltham. Refound in Windsor on King Edward VII Avenue, just west of Windsor Road Bridge in 1998, growing out from the grass verge onto the concrete of the pavement. Restricted entirely to the Thames valley, and extinct at most of its former sites. <1% (1km²). Atlas 2000: [77], [97]

West Berks: formerly in the Thames valley from Kennington [50] down to Reading [67] and scattered through the Kennet valley, but extinct at most of its former sites. Wickham [37], Newbury (1986) [46], East and West Ilsley [48], Frilford Heath [49], Hill End

Camp at Wytham (1987) and Boar's Hill [40], between Hermitage and Newbury [56], Streatley and Riddle Hill (1977) [58], Didcot (2004) [59], Bagley Wood [50], Cothill and Englefield Park [67], Wallingford (1976) [68]. Extinct at many of its former sites. Atlas 2000: [29], [46], [49], [40], [58], [59], [67]

Caucalis platycarpus L. *Small Bur-parsley* • th 6 †
Caucalis daucoides L. (1767) non L. (1753).

East Berks: cornfields, very rare. Near Reading in 1805.

West Berks: in fields between Wickham and Welford [47] and by the railway at Newbury (BM) [46] in 1896.

Turgenia latifolia (L.) Hoffm. *Greater Bur-parsley* • th 6 †
Caucalis latifolia L.

West Berks: a grain and bird-seed alien recorded from Newbury [46] in 1896 (BM), Shaw Mill [46] in 1905 (BM) and at Cothill [49] in 1908 (OXF).

GENTIANACEAE

Centaurium pulchellum (Sw.) Druce *Lesser Centaury* th 6 ↓
Gentiana pulchella Sw.
Erythraea ramosissima Fries

A local speciality of dry sandy heaths on limestone, very rare. Told from *C. erythraea* by its annual habit (no basal leaf rosette at flowering time) and flowers with stalks (1-4mm) between the bracts and the base of the calyx.

East Berks: no records

West Berks: confined entirely to limestone soils in the Northern Loop. Wytham [40] in 1946 (OXF) and in a cornfield south-south-west of Beacon Hill [40] in 1964 (OXF). Druce's plant in (OXF) is an error for *C. erythraea*. Few recent records, but worth looking for around Stroud Copse [4407] and on Wytham Hill [4608]. Locally frequent on pulverised fly ash at Pumney [519970] in 2001. In a small clearing near a pond on the Wasing Estate [5839 6358] in 2003; Bill Helyar found the plant in two nearby places in 2004, at [585637] and [588637].

Gentianella campestris (L.) Borner *Field Gentian* hs 7 †
Gentiana campestris L.
Gentianella baltica sensu E. Warb. et auct., non (Murb.) Boerner

Dry open pastures and heathy commons. Very rare or extinct. This is a northern and western plant, and the absence of specimens must put some of the Berkshire records in doubt. Note, however, that it still occurs in North Hampshire (v.c.12) in Highclere Park [4560], just south of the Berkshire boundary, beyond Newbury (det. F. Rose). Populations are typically very low in dry summers.

East Berks: no records

West Berks: very rare or extinct on the Kennet heaths. Woodhay Common [36] in 1874, Greenham Common [46] in 1891 (RNG), Wickham [37] in 1897, Enborne Street and Sandford Priory Park [46] in 1897, Sulham [67] in 1897. Last seen at Brimpton [56] in 1930 (Report of the Botanical Exchange Club). Well worth searching for on Greenham and Snelsmore Commons.

Gentianella germanica (Willd.) Borner *Chiltern Gentian* hs 9
Gentiana germanica Willd.

A local speciality of chalk grasslands. It is commonest on dry chalk downs on the northern escarpment, flowering very late in the summer (i.e. September-October). Scarce in Britain, this is a biennial reproducing by seed, found particularly in places where the soil has been disturbed by rabbits or off-road vehicles. Requires more shelter than *G. amarella* and is unable to withstand as much competition from other vegetation. A successful coloniser of bare chalk in chalk pits. Associates include *Anthyllis vulneraria*, *Euphrasia nemorosa*, *Gentianella amarella*, *Lotus corniculatus* and *Rhinanthus minor*. At risk from hybridisation with the more vigorous *G. amarella* (see below). Known by its large corolla (25-35mm rather than 12-22mm) which is more than twice as long as the calyx.

NVC: CG 2

East Berks: not recorded by Druce, but Bowen knew it from old chalk pits and open scrub at Hurley pit in 1964. <1% (1km²). Atlas 2000: [88]

West Berks: Inkpen Beacon [3562], Inholmes [3373] (OXF), Cleeve Hill [332765], Pit Down [3383], Rivar Copse [3562] (OXF), Wether Down Lambourn [3281], abundant at Letcombe Castle in 1897 (and 1991) flowering well after the *G. amarella*, Segsbury Camp [3884], Crog Hill and Gramps Hill [38], Upton [5186] in 1891 (OXF), Park Wood [5275], Streatley [5580] in 1937 (OXF). Atlas 2000: [36], [37], [38], [57], [58]

Gentianella x pamplinii (Druce) E.F. Warb. = **G. germanica x G. amarella**
Gentiana x pamplinii Druce

A local speciality. The hybrid is intermediate in corolla shape, size and colour and is about 50% fertile. It occurs near most populations of *G. germanica* (see above). It was described as new to science by Druce who noticed it for the first time in 1891 growing with *G. amarella* and *G. germanica* on the earthwork known as Letcombe Castle [3884]. "In this locality a good deal of *G. amarella* continued to flower with *G. germanica*; usually it is an earlier flowering plant. The obconical tube of *G. germanica* fully distinguishes it from the nearly cylindrical tube of *G. amarella*. In this instance a few plants of a distinctly intermediate character were found; they had a longer and more conspicuous corolla than *G. amarella*, but the corolla was more cylindrical than in *G. germanica*; the pollen was defective, and the plant was distinctly intermediate. *G. germanica* is, I think, distinct from *G. amarella*. In addition to the above character, the leaves are broader than those of *G. amarella*, and the colour of the flowers is distinctly lighter, more blue than purple, and often lilac. It occurs more plentifully where the grass is very short and sparse" (Druce 1897).

East Berks: no records, but the plant should be sought at Hurley pit.

West Berks: Letcombe Castle [3884] in 1892, at the base of Rivar Copse (**OXF**) [3560] in 1913, Segsbury Camp (= Letcombe Castle) [3884] in 1956 (**OXF**), and Cleeve Hill SSSI [332764] from 1974-2004.

Gentianella amarella (L.) Borner *Autumn Gentian*
Gentiana amarella L.

hs 8

Gentianella amarella subsp. **amarella**

This is our common Gentian of chalk grassland, frequent all the way along the chalk escarpment from Ashbury to Streatley. Pastures on limestone, grassy chalk downs, etc., flowering late in the summer (i.e. July – October). Told from *G. germanica* by its smaller corolla and from *G. anglica* by its greater number of internodes and small apical pedicel.

NVC: CG 2-5

East Berks: "locally abundant on the chalk near Marlow sometimes of great size and beauty" (Druce), Park Place, Rose Hill, Bisham Wood, Quarry Wood, Cookham, Culham, Stubbing's Heath with very reddish purple flowers, Waltham. Ashley Hill (1970), edge of Maidenhead Thicket (1986), Remenham, Winter Hill and Cookham Downs (1999). 1% (1km²). Atlas 2000: [78], [88]

West Berks: Ashdown Park, Ashbury, above Compton Beauchamp and Idstone [28], Anville's Copse, Walbury Camp and Gibbet Hill [36], Lambourn Downs [37], Sparsholt, Seven Barrows, Uffington, Letcombe Castle (= Segsbury Camp) and Whitehorse Hill [38], Cherbury Camp [39], Sandford [46], East and West Ginge Downs, Knollend Down, East Hendred Down, Lockinge and Farnborough [48], Cumnor and Wytham [40], Hampstead Norreys and Ashampstead [57], Kingstanding Hill, Lowbury, Blewbury, Moulsoford, Compton Downs, Aston Upton Downs, Streatley golf course and Ilsley Downs [58], Wittenham [59], Sulham (**LAN**), Basildon and Pangbourne [67]. Atlas 2000: [28], [36], [37], [38], [48], [40], [57], [58], [67]

[**Gentianella amarella x anglica**]

No records, but this should be sought where *G. anglica* grows (see below)

Gentianella anglica (Pugsley) E.F. Warb. *Early Gentian*
Gentiana anglica Pugsley
Gentianella anglica subsp. *anglica*

hs 5

A local speciality of short chalk grassland; local and very rare. This plant is scarce in Britain and has the distinction of being one of the very few English endemics. It is an annual plant of sparsely vegetated, base-rich, parched grasslands, on south-facing chalk downs, on ground that is kept short by grazing and trampling. Seed germinates in spring, and numbers fluctuate greatly from year to year, apparently buffered by the existence of a long-lived seed bank. Threatened by cessation of appropriate grazing, leading to proliferation of coarse grasses and scrub encroachment, but also by fertiliser pollution of grazed land. The molecular geneticists have not yet found any distinguishing DNA, so there is some doubt about the status of the plant, but its phenology is highly distinctive and its morphology is constant under common garden conditions. England has few enough endemic species, so let's not get rid of this one.

Known from the other two chalk grassland gentians as follows: *G. germanica* has a much larger corolla (25-35mm rather than 12-22mm), and *G. amarella* has more internodes (4-9 rather than 0-3), and the upper pedicel plus the uppermost internode is much less than half the total plant height (in *G. anglica* the top internode plus the top pedicel is usually much more than half of the total plant height). The relatively shorter apical pedicel of *G. amarella* also means that the pedicel of the apical flower is typically hidden by the calyces of adjacent flowers at the topmost node, whereas the apical pedicel of *G. anglica* is typically visible and stands proud of the calyces of adjacent, shorter pedicelled flowers from the topmost node.

NVC: CG 2

East Berks: it has never been recorded from the eastern chalk (e.g. Hurley or Winter Hill). Since the plant seems to have retreated westwards in recent years, it is unlikely to be discovered here.

West Berks: in Druce as *Gentiana amarella* var. *praecox*; “the form which flowers much earlier in the year (i.e. May-July) occurs on Whitehorse Hill, Lambourn Downs and Ilsley Downs”. This is still a very good description of its distribution. Kingstone Down and Compton Beauchamp [28], Hackpen Hill, Lambourn Downs and Whitehorse Hill [38], Catmore and East Hendred Down [48], Churn, East Ilsley Down and Streatley Warren [58]. The current strongholds are on Weathercock Hill opposite Ashdown Park [2882] and on Whitehorse Hill [3086] in the verges of the road from the car park down to Dragon Hill and in short turf around the tail and back legs of the White Horse itself. Susan Erskine counted 112 plants on the south-facing flank of Weathercock Hill [288820] and Kingstone Down [286822] on 21 May 1999, and 525 plants on Whitehorse Hill [2986 and 3086] on 24 May 1999. George Osmond recorded the plant from Westfield Farm SSSI [355768] in “substantial numbers” in May 2000. Atlas 2000: [28], [37], [38]

Gentiana pneumonanthe L. *Marsh Gentian*
Dasystephana pneumonanthe (L.) Soják

hp 8 †

An extinct local speciality, formerly found in acid bogs on heathland. This species is scarce in Britain. It is a long-lived (c.20 year) perennial of damp heath and heathy grassland, typically growing with *Molinia caerulea* and *Erica tetralix*.

Ascot: it still survives in 2002 just outside our area on the wrong side of the A30 in what used to be the Surrey part of Sunningdale [96], in damp *Molinia* just north-west of Victoria's Cross [964655], on the eastern side of the B383 road in Chobham Common National Nature Reserve. It flowers in August and September. I think the old Wildmoor Bottom record (below) is probably correct because the habitat there is identical to the habitat at the surviving Chobham Common site.

East Berks: Wildmoor Bottom near Sandhurst (1879). Extinct in Berkshire according to Bowen, who doubted the Sandhurst record (but see above).

West Berks: recorded without a specimen from Sulhamstead Common [6368] by N. Beeke in 1806. Planted at Jarn Mound [40] in 1933. Not seen since then.

SOLANACEAE

Atropa belladonna L. *Deadly Nightshade*

hp 6 ↓

Disturbed ground and track-sides in woods on chalky soils. Also, rare and sporadic in gardens and waste places. Locally common where it occurs, but absent from many apparently suitable habitats.

Ascot: no records

East Berks: Windsor Great Park, Bisham Wood, Culham Court. Reading, Sonning, Binfield, Quarry Wood. Bray (1974). Scattered records from the Thames valley, absent or rare elsewhere. Recently at Dial Close near Maidenhead. 1% (1km²). Atlas 2000: [77], [87], [88]

West Berks: scattered in woods on the chalk, but absent or rare to the north of 90 and south of 70. Lambourn and Cleeve Hill [37], Furzewick Down and Wantage [38], Buckland [39], Welford [47], Upper Seeds at Wytham [40], Park Wood, Hampstead Norreys and Ashampstead [57], Downs Farm, Moulsoford Down, North Unhill Bank, Aston Upthorpe Downs, Goring Gap and Streatley [58], Basildon (LAN) [67], Pangbourne [6277], Wallingford [68]. Atlas 2000: [37], [38], [39], [46], [47], [48], [40], [57], [58], [67], [68]

Hyoscyamus niger L. *Henbane*

○ hs 6

Roadsides, disturbed waste ground, bare places in woods and stone pits. Rare and sporadic, usually on nutrient-rich soils. A sinister, malodorous species, possessed of legendary seed longevity. The seeds can survive burial for many decades (perhaps even for centuries in the foundations of old buildings) then spring up again as soon as the soil is disturbed. Commonest round rabbit warrens on the chalk, but also close to ancient buildings where it is a relic of medicinal cultivation.

Ascot: no records.

East Berks: in the common pasture under Cookham Down, Knowl Hill, Pinkneys Heath, Finchampstead, Park Place, Windsor, Shiplake, Stubbing's Heath, Wellington College Station, Cockpole Green. Reading, Wellington College, Smallmead tip (1973), roadworks at Shinfield (1978). Most of the old records came from the Thames valley, scattered around Reading. Absent from the interior and to the east of 85. <1% (1km²). Atlas 2000: [76], [77]

West Berks: scattered throughout, but least abundant in the interior, and lost from many of its former sites. Watchfield [29], Ashdown Park [28], Devil's Punchbowl and Whitehorse Hill [38], Crowhole Bottom [353848], Haremoor Farm [303964], Hamstead Marshall [46], Long Copse Cumnor and Wytham [40], Fairfield Nurseries at Hermitage [57], West Hagbourne [58], Sutton Courtenay and Radley [59], Streatley Warren (LAN) [58], Cholsey [58], Pangbourne tip [67]. Atlas 2000: [28], [38], [39], [48], [40], [58], [59], [67]

Solanum vernei Bitter and Wittm. *Purple Potato*
Solanum ballsii Hawkes

● h 6

Alien perennial from Argentina.

East Berks: a local speciality, thoroughly naturalised and locally abundant in shrubberies near the Halls of Residence on Reading University Campus at Whiteknights Park. Thought to have been imported originally with dumped soil in 3 places [7371] in 1985 (RNG) (det. J. Hawkes). This is the only British station for this South American alien which has big (35-45mm diameter) purple potato flowers. As far as I can tell it is not a garden plant in Britain, so how its seeds came to be in the dumped soil remains a mystery. Now in several places down to Black Bridge and on both sides of the drive to Foxhill House. There is a large patch on the bank of the lake amongst alder and dogwood, and the garden of Foxhill Lodge has been all but taken over by the plant (Hora, 1995, *BSBI News* 68, 36). <1 % (1km²). Atlas 2000: [77]

Datura stramonium L. *Thorn-apple*
Datura tatula L.

• th 7

Demolition sites, waste ground, rubbish tips and rich garden soil; local and sporadic.

Silwood Park: long-lived in the seed bank but very rare as a flowering plant. Outside the door of the Cocoa Greenhouse 16 September 1980. Also on the ruined base after the Cocoa Greenhouse was demolished in June 1996. There were only 2 plants in 1997 and none in 1998. South Lodge Wood, on the track behind the Japanese Garden on 22 August 1983 (never seen again in this location). By the BP greenhouse in July 1997; 5 flowering plants. North Gravel; in the seed bank beneath the cypress hedge behind the Header House, coming up and flowering in September 2000 on the bare ground left after the hedge had been cut down in May 2000. The hedge had grown there for 18 years, having been planted to screen the Greenhouses from the site of the proposed Southwood Halls (built in 1983).

Ascot: local and rare. A single plant on 16 September 2003, on bare ground on the demolition site in Sunninghill [939683] where the long-empty houses of Matthews Court had stood until the site was bulldozed in early 2003. A huge, tree-like plant (75cm tall) on rubble on the site of the demolished mansion at King's Beeches [934668] on 1 December 2003.

East Berks: Cookham, by the railway between Shiplake and Twyford, Windsor, in garden ground at Frogmore. Leighton Park, Reading allotments, Woodley, Twyford, Wargrave, Wellington College, Wokingham, Maidenhead tip, Windsor. Farley Hill (1970), Smallmead tip (1971), tipped soil at Whiteknights Park (1973-84), Finchampstead Ridges (1975), Charvil (1978). 2% (1km²). Atlas 2000: all except [78], [87]

West Berks: scattered throughout but rarest in the interior. Shrivenham [28], Inkpen [36], Wantage [38], Kingston Bagpuize [49], Newbury [46], Wytham [40], Denchworth [39], Didcot [59], Abingdon [49], Grandpont [50], Rowstock [48], Sheepstead House [49], Long Wittenham [59], Radley [59], Stanford Dingley [57], Tilehurst allotments (LAN), Pangbourne, Battle Farm and Theale [67]. Atlas 2000: [36], [39], [46], [48], [49], [57], [59], [67].

Browallia speciosa Hooker *Bush-violet*

• h 7

Shrubby perennials, woody at the base, native to Colombia. Flowers with a leathery calyx and corolla up to 5cm across, blue or deep purple with a white eye, illustrated in *Conservatory and Indoor Plants*, Vol 2, p 143 (Phillips and Rix, 1997).

East Berks: a local speciality which has been a weed since 1979 in the Botanical Garden at Whiteknights Park in Reading [7371] (RNG) (det. R. Rutherford). This is its only British station.

CONVOLVULACEAE

Calystegia x lucana (Ten.) G. Don = **C. sepium x C. silvatica**
Convolvulus x lucanus Ten.

Recorded without further details as present in Berkshire (Stace 1975).

Calystegia pulchra Brummitt & Heywood *Hairy Bindweed*

• hp 7

Convolvulus dahuricus sensu Walters & D. Webb, non Herbert

Calystegia dahurica sensu Walters & D. Webb, non (Herbert) Don

Calystegia sepium (L.) R. Br. subsp. pulchra (Brummitt & Heyw.) Tutin, nom. inval.

Garden hedges and waste ground; rare.

Ascot: rare, on a tall wire-mesh fence in Sunninghill Village (1979-2000).

East Berks: Leighton Park (1962), Dinton Pastures (1988). <1% (1km²). Atlas 2000: [96]

West Berks: Shrivenham [28], Wantage Road Station and Abingdon [49], Radley and Didcot Station [59], Tidmarsh [67]. Atlas 2000: no records.

CUSCUTACEAE

Cuscuta europaea L. *Greater Dodder*

p 8 ↓

A local speciality, growing as a parasite on nettles in damp thickets near streams, and on herbage along the banks of our larger rivers. Local and rather rare.

East Berks: parasitic on *Urtica dioica* by the R. Thames; local and in small quantity. Bulmarsh Heath, Clewer, Caesar's Camp, Winter Hill, Park Place boat house, almost smothering the hedge opposite the cottage at Hennerton chalk-pit [7880] on the Wargrave road, Old Windsor. Sonning, between Aston and Hambledon Lock, Maidenhead sewage works, Bisham wood, Cliveden reach, Windsor. Declining. Last seen at Crazies Hill in 1986. <1% (1km²). Atlas 2000: no records

West Berks: extinct at most of its former stations, now confined to the eastern reaches of the R. Thames at Cholsey and Streatley [58], Little Wittenham reserve [59], Tilehurst [67], Wallingford [68]. Previously found in the Kennet valley at Wickham [37] and Newbury [46], and from further upstream in the R. Thames as at South Hinksey [50] and Abingdon [49]. Declining. Atlas 2000: no records

Cuscuta epithymum (L.) L. *Dodder*

p 7 ↓

Cuscuta europaea L. var. *epithymum* L.

Chalk grasslands and dry heaths, parasitic on *Ulex*, *Thymus*, *Calluna* and *Erica*; preferring sunny situations. NVC: H 2,3

Ascot: Englemere (1966-74), Swinley (1974). Not seen recently, but worth looking for.

East Berks: Finchampstead (1918), Coleman's Moor (1918), Wellington College, Earley Common, Bulmarsh Heath (1883), Wokingham, Ascot, Ambarrow, Riseley, Bracknell. "The form parasitic on clover and beans (as *C. trifolii*) recorded from Winter Hill, Old Windsor, Shinfield, Swallowfield, Bray, Sonning, Waltham and Twyford may have decreased owing to greater care now bestowed on the cleaning of clover seed" (Druce). Parasitic on *Calluna* and *Ulex* on heaths. Local, rare, sporadic and decreasing. Wellington College, Rapley's Farm (1960-79). Extinct at 5 of its 9 stations by Bowen's time. Still declining. 1% (1km²). Atlas 2000: [86]

West Berks: extinct at about half of its former sites, but still at Inkpen Common on *Calluna* [36], Crookham Common and Bucklebury Upper Common [56], Hurdle Shaw [57], North Unhill Bank and Streatley [58], Silchester Common and AWRE Aldermaston [66], Sulham, Pangbourne and Southcote [67]. Atlas 2000: [36], [56], [57], [58], [66], [67]

Cuscuta epilinum Weihe *Flax Dodder*

• p 7 †

A serious weed of flax fields in the nineteenth century that was deliberately eradicated (last record from Britain in 1968).

West Berks: a single record by Druce as a casual at Didcot Station [59] in 1895 (no specimen).

MENYANTHACEAE

Menyanthes trifoliata L. *Bogbean*

hel 5 ↓

Marshes, bogs, fens and borders of slow streams and acid ponds; tolerant of shade. Locally frequent but decreasing. Planted in several locations in ornamental ponds and lakes.

NVC: M 13,22; OV 26; S 1,4,8,10,12,13,25; W 4

Ascot: very rare in a pond by Fernbank Road (2000).

East Berks: abundant by the Strand at Cookham, in a wet meadow near the spring at Crazy Hill, Sandhurst, Wellington College Station, Long Moor, Windsor Great Park. Bearwood Lake, Shinfield, Queens Mere (1961). Trilakes at Sandhurst (1975), Finchampstead Ridges (1975). Extinct at all 3 of its former stations in the Thames valley Sonning, Crazies Hill. Survives in cluster of sites in the south-west, centered on Wokingham. Recently at Longmoor Bog where the stream flows through a clearing in the birches, Bearwood Lake, California Country Park, the north-west corner of Heath Lake, Wellington College, Bray. In the new village pond (planted c.2000) south of Knowl Hill [825793] in July 2003. 1% (1km²). Atlas 2000: [76], [86], [96], [97]

West Berks: extinct at more than half its former sites in the Kennet valley and Northern Loop. By the R. Cole [29], water meadows west of Hungerford, Kintbury and West Woodhay [36], Greenham Common and Hamstead Marshall [46], Boxford and Snelsmore Common [47], Cothill Fen [49], in bogs between the old and new roads to Eynsham and by a stream under Wytham Wood, still locally dominant in the pond at Jarn Mound [40], in a pond east of Chapel Row and AWRE Aldermaston [56], luxuriant and abundant at Fence Wood [57], in the pond at Blewbury and amongst rushes on Hagbourne Moor [58], abundant in the meadows

between Radley and Abingdon [5298], Didcot and Shillingford Hotel meadow [59], Aldermaston Decoy [66]. Atlas 2000: [36], [37], [38], [46], [47], [49], [40], [56], [57], [66]

POLEMONIACEAE

Navarettia squarrosa (Eschsch.) Hook. & Arn. *Skunkweed* ● th 6

East Berks: a local speciality, and the only Berkshire alien to have its own paper in *Watsonia* (Clement et al., 1993). Introduced unintentionally with wildflower seed, when the appallingly mismanaged tip at Manor Hill [9569] within Windsor Great Park was finally tidied up. The site was bulldozed and landscaped in 1989. In July 1990, there were several thousand plants thickly scattered on more or less bare sandy ground. The site had been sown the previous autumn with a wildflower mix, the seed of which originated in Oregon, USA. Most of the seeds had failed, and the *Navarettia* was growing with a scattering of *Spergularia rubra* and *Gnaphalium uliginosum*. In 1991 the *Navarettia* and *Plagiobothrys scouleri* (also, presumably, in the seed mix) were present but in lower numbers. A few plants survived to July 1999, by which time the original site was overgrown, but new bare ground nearby had been colonised; this ground had been kept open by turning forest trucks. <1% (1km²).

West Berks: a small group of plants on the line of the former runway on Greenham Common [507644] in June 2001.

BORAGINACEAE

Lappula squarrosa (Retz.) Dumort. *Bur Forget-me-not* ● th 6 †

Lappula myosotis Moench.

Lappula echinata Gilib.

West Berks: at Didcot [59] in 1895 (OXF), Pangbourne [67] in 1897 (OXF), by the railway at Newbury [46] in 1897, Cothill [49] in 1910 (OXF), at Wantage Flour Mill [38] in 1956.

Lithospermum arvense L. *Field Gromwell* ○ th 5 ↓

Buglossoides arvensis (L.) I.M. Johnston

Cornfields, especially on chalky or calcareous soil, but not restricted to them. Arable fields on dry, calcareous soils. Rare.

East Berks: cornfields near Marlow, Cookham, Bisham, Wargrave, Twyford. Bowen had no new records. <1% (1km²). Atlas 2000: [77], [87], [88], [97]

West Berks: occasional on the chalk north of 75 and south of 95, with outliers on the chalk of the Hampshire border [36] and on the oolitic limestone of the Northern Loop [40]; rare or absent elsewhere. Arable land at Tilehurst (LAN) in 1958. Locally frequent on Odstone Down [287830], Kingston Down [28], Seven Barrows, Whitehorse Hill, Devil's Punchbowl, Washmore Hill, and Ridgeway above Letcombe Bassett [38]. Atlas 2000: all except [29], [36], [46], [56], [66], [68], [69]

Echium plantagineum L. *Purple Viper's-bugloss* ● th 6 †

West Berks: two plants in a field by the railway at Newbury (RNG) [459671] in 1976. Headland strip near Paices Wood [5821 6399] in 2003.

Nonea lutea (Descr.) DC. *Yellow Nonea* ● th 3

Silwood Park: a local speciality of open bare ground and sunny brick walls. Long established, thoroughly naturalized and resilient to repeated attempts at eradication by Philistine gardeners who don't know a good alien when they see one. Growing with *Briza maxima* on the cinder pot stand behind The Greenhouses (1970-2004). The original population was on compacted ground by the door at the end of the eastern greenhouse. This population was gone by March 1995, but a new population appeared on the opposite side of the pot standing in the angle made by the potting shed and the western greenhouse [9449 6851]. This population has expanded and was abundant, and flowering superbly in April 1996 around all of the sunny wall-bases. The population was herbicided and very poor in March 1997 but was fully recovered by 1999. A new, *Nonea*-friendly regime of weed management is now in place, with weed removal and soil disturbance in mid summer (after seed set) but no herbicides. There was a significant range expansion when 30 plants came up on North Gravel, over 400m to the north, on bare ground created when the Leyland cypresses were felled in 1999; the first flowers from these plants appeared on 9 March 2001, but the population was gone by 2003.

East Berks: no other records

West Berks: no records

Symphytum asperum Lepech. *Rough Comfrey* ● hs 6 ↓

Told from *S. uplandicum* by its calyx hairs and non-decurrent uppermost leaves (see above).

East Berks: very rare. White Waltham (1997), Scotlands (1999). <1% (1km²). Atlas 2000: [87], [88]

West Berks: Pusey House [358967] in 1971, Stanford Dingley [576715] in 1980 in old gardens. Atlas 2000: [47]

Symphytum tuberosum L. *Tuberous Comfrey* ● hs 6

A coarse creeping perennial with spiralled cymes of pendulous yellow, almost cowslip-like flowers. Told from *S. orientale* by its more divided calyx (more than halfway to the base) and yellow (not white) corolla. Told from *S. tauricum* (not yet recorded from Berkshire) by the presence of rhizomes and by its unbranched stems and sessile (not petiolate) middle and upper stem leaves.

East Berks: in a plantation at St Leonard's [9374] in 1969.

West Berks: in a plantation at Lockinge [48] in 1964 and on Inkpen Common [36] in 1967.

Symphytum orientale L. *White Comfrey* ● hs 4 ↑

Rough grass and waste ground; uncommon but increasing. Told by non-decurrent petiolate leaves, its dull tuberculate nutlets, white corolla, included corolla scales and calyx divided less than halfway to the base.

Silwood Park: locally abundant and increasing, but some of the populations are sporadic. Buckhurst Road Entrance, a single clump in shady grass next to the Lodgepole Pine on 17 May 1993. This area was tidied up in 1994 and the plant has not been seen since. South Lodge Wood: rare in the nettles behind the Japanese Garden on the north side on 22 May 1998. East Lodge: several large plants along the boundary road into the eastern car park of the Science Park on 22 April 2000; this population had increased to 12 plants by April 2001 and to 40 by 2002, when it was attacked with herbicides by gardeners who were renovating the shrub bed.

East Berks: not in Druce. Roadsides in small quantity. Local but likely to increase (Bowen). Whiteknights (1967), Shinfield (1964), Bracknell (1965), Buckland Drive Reading (1968), Earley Church (1970). Recently at Earley, The Mount, Holyport, East Maidenhead. 2% (1km²). Atlas 2000: [76], [77], [87], [96]

West Berks: not in Druce. In dumped soil at Milton [49] in 1977, Boars Hill [40] in 1967, Sutton Courtenay [59] in 1977, 1982 and 2001, Little London [50] in 1963, Wallingford [68] in 1979. Atlas 2000: [38], [48], [40], [59], [68]

Anchusa officinalis L. *Alkanet* ● hs 6 ↓

Dry, sandy waste ground and gravelly heaths, very rare. The corolla tube is straight (not curved) with 5 equal (not slightly unequal) lobes.

East Berks: in a gravelly and heathy piece of ground near Finchampstead (1891), possibly introduced with pheasant food. Not seen by Bowen. Fleet Hall pit [76] in 1918 (**RNG**), Suttons old nursery ground [733737] in 1979. Atlas 2000: no records

West Berks: Cothill [49] in 1907, Abingdon [49] in 1918, Tilehurst [67] in 1958 (**LAN**), Hatford pit [39] in 1966. Recorded by Susan Erskine on 9 July 1999 from waste ground behind the dentist's surgery in Faringdon [287 955]. Found by Bill Helyar on a bank of soil in the carpark at Shalford Lakes [5687 6508] on 21 September 2004 growing with *Chrysanthemum segetum* and *Echium vulgare*. Atlas 2000: [29], [40]

Amsinckia micrantha Suksd. *Common Fiddleneck* ● th 5
Amsinckia intermedia auct., non Fischer and C. Meyer
Amsinckia menziesii auct., non (Lehm.) Nelson and J.F. Macbr.
Amsinckia calycina auct., non (Moris) Chater

A wool, grain, bird-seed, carrot-seed, grass-seed and linseed alien. There must have been a marked improvement in the effectiveness of seed cleaning in the late 1920s because the plant has not been recorded from Berkshire since then.

East Berks: not in Druce. Between Reading and Sonning [77] in 1925 (**OXF**).

West Berks: Moulsoford [58] in 1921 (**OXF**), Hungerford [36] in 1923, Abingdon [49] in 1926. On a waste tip, now built over, at Letcombe Regis [38] in 1990. Still in a field in Little Coxwell [286933] in 2001.

Plagiobothrys scouleri (Hook. & Arn.) I.M. Johnst. *White Forget-me-not* ● th 7 †

A rare casual, occasionally persistent, often as a contaminant of wildflower and grass seed mixes.

East Berks: introduced unintentionally with wildflower seed from Oregon, USA, when the tip at Manor Hill in Windsor Great Park [9569] was finally bulldozed and tidied up in 1989. It thrived on bare ground with *Navaretia squarrosa* (see Clement et al., 1993) for several years after 1991, but was gone by 1999.

West Berks: no records

Asperugo procumbens L. *Madwort* • th 5 †

Waste ground, rare by railways. Bowen reckoned that this was extinct in Berkshire.

East Berks: no records

West Berks: formerly an occasional grain alien on the railway at Didcot [59] in 1895 (**OXF**) and Newbury [46] in 1897, and on waste ground at Grandpont [50] in 1892 and Speen [46] in 1918.

Myosotis secunda Al. Murray *Creeping Forget-me-not* hel 5 ↓
Myosotis repens Don ex Borrer, non Moench

Wet heathy places, and margins of ponds on acid soils; rare and decreasing. Told from *M. scorpioides* by its short style (shorter than the calyx lobes at flowering) and by its isosceles (long sided) triangular calyx lobes, and from *M. laxa* by the lower stem with spreading (not appressed) hairs.

Ascot: no records

East Berks: Bagshot, near Cumberland Lodge, Easthampstead Plain (all pre-1897). Margins of acid streams and ditches; rare. Owlsmoor (1961). Extinct at all of its sites except Owlsmoor and Wellington College bog. <1% (1km²). Atlas 2000: no records

West Berks: very local in the eastern Kennet [46], [56] and [66]: Greenham Common [46], Beenham and Turners Green [530697], Burghfield, Padworth and Mortimer West End [66]. Atlas 2000: no records

Cynoglossum officinale L. *Hound's-tongue* hs 6 ↓

Chalk grassland, waysides, dry woods, heaths, commons, chiefly on gravelly or calcareous soil. Druce considered the plant to be "local", while Bowen had it as "in small quantity; local and decreasing, and only seen recently in north Berkshire". Now it is on the verge of extinction in West Berkshire. The cause of its steep decline is not at all obvious, because it is still common enough in disturbed ground around rabbit warrens on the chalk in Kent and Hampshire.

NVC: CG 6; W 12

Ascot: no records

East Berks: Reading, railway bank at Earley, Park Place, Twyford, Stubbing's Heath. Extinct at all of its former Thames-side locations by Bowen's time. Last seen on a roadside in Windsor Great Park [9572] in 1950. Atlas 2000: no records

West Berks: now rare on the western Thames and in the Northern Loop. Absent from the interior, and extinct at all 6 of its former sites south of 90. Watchfield [29], Cherbury Camp, Buckland Warren, Charney Bassett and Pusey [39], north-west of East Hendred [48], Frilford Heath [49], Cumnor Hill [40], Unhill Wood and Cow Common [58], Barrow Hills [59]. Recently recorded from set-aside land at Black Horse field [467983] and Frilford Heath [447981]. Atlas 2000: [29], [39], [48], [49], [40], [57], [59], [67]

VERBENACEAE

Verbena bonariensis L. *Argentinian Vervain* • h 7

A very tall herbaceous late summer border plant (up to 1.5m), sometimes found on roadsides in towns and on waste ground in villages. This plant has a world-wide distribution as a roadside alien, commonest in the sub-tropics and warm temperate regions (it is native to South America). As a roadside alien, it grows commonly with *Conyza sumatrensis* in Africa and New Zealand; it will be interesting to see if it follows the British invasion of *C. sumatrensis* as the climate warms. It is still a rare garden escape in 2002, not really naturalised anywhere in Berkshire. Told from *V. litoralis* by the location of insertion of the stamens (at or below the middle of the corolla tube, rather than well above the middle) and by corolla size (5-6.6mm rather than 3-3.5mm).

East Berks: very rare garden escape or outcast. Smallmead tip (1969). By the M4/A33 Interchange [709702] in August 1999. On waste ground in Bisham [8585] in June 2002 and at Earley [7571] in August 2002. <1% (1km²).

West Berks: a rare escape on waste ground in Bourton [2386] in September 2004.

LAMIACEAE

Stachys annua (L.) L. *Annual Yellow-woundwort* • th 6 †

Waste places, rare in Druce's time. Long extinct.

West Berks: at Didcot (**OXF**) [59] in 1895 and Grandpont [50] with other aliens (1897). Also seen at Cothill [49] in 1918.

Stachys x ambigua Sm. *Hybrid Woundwort* = **S. sylvatica x S. palustris**

In ditches, rather rare, but certainly under-recorded.

East Berks: Twyford (1897), Sindlesham Mill (1962)

West Berks: west of Abingdon Station [59], South Hinksey [50], Mortimer [66], Bradfield and Chapel Hill Tilehurst (**RDG**) [6874] in 1918.

Stachys arvensis (L.) L. *Field Woundwort* ○ th 4 ↓
Glechoma arvensis L.

Cultivated fields, more frequent on sandy soil. Rather local; Dry arable fields, mostly on mildly acid soils; local, sporadic and absent from clay soils.

NVC: OV 4

Ascot: no records

East Berks: Finchampstead, Park Place, Hurst, Maiden Earley, Barkham, Wargrave, Maidenhead. Rare and extinct at half of its former stations. Surviving at Arborfield [7567], Eversley [7762], Wargrave [7878], and Jealott's Hill [8773], Oakley Court [9277]. By the M4/A33 Interchange [709702] in August 1999. < 1% (1km²). Atlas 2000: [76], [77], [86], [87]

West Berks: Beckett Park [28], Bushy Heath Buscot [29], Wickham [37], Seven Barrows [38], Pucketty Farm and Oldfield Farm [39], East Ilsley [48], Appleton and Bushy Leaze Copse [40], on an old bomb dump at Greenham Common [56], arable land south of Greathouse Wood, Frilsham and Tutts Clump [57], Streatley [58], Radley [59], Kennington tip [50], Silchester, Tadley and Padworth [66], Sulham and Tilehurst [67]. Atlas 2000: all except [46], [47], [49], [59], [68], [69]

Leonurus cardiaca L. *Motherwort* ● hp 7 †

Very rare alien, casual in waste places. A striking species, now known only as a “plantsman’s plant” in gardens.

East Berks: in a hedge near Finchampstead (1891-96) (**OXF**). On Suttons Nurseries (**RDG**) in 1915-18, and at Bray (**RDG**) in 1934. Bowen regarded the plant as extinct in our area. There is a record from 8 Glebe Road, Reading [7272] in 1986. Atlas 2000: no records

West Berks: West Woodhay Common [36], by the railway at Didcot (**OXF**) [59] in 1894. Atlas 2000: no records

Galeopsis angustifolia Ehrh. ex Hoffm. *Red Hemp-nettle* ○ th 7 ↓

This beautiful plant is one of our local rarities. It occurs sparingly in cornfields and cultivated ground, more frequent on calcareous soil and on rubbish tips. Sadly, much reduced in both distribution and abundance.

East Berks: probably extinct. First record; Sonning (1839). A single record from a chalk railway bank at Cox Green [8779]. There is an unlocalized 1950+ record from [97]. Atlas 2000: no records.

West Berks: all but restricted to the chalk downs centred on [58] with outliers at Inkpen [36], Denford [353687] and Shefford Woodlands [37]. Known from Baydon Hole Farm [291784] and Wayland's Smithy [28], Faringdon [29], eastwards to Whitehorse Hill, Furzewick Down and east of Wantage [38], Cherbury Camp [374963], Newbury [46], Ashridge Wood [47], Abbots Heath [461844], Mead Platt [427839], East Ilsley, Chilton Cutting, Yew Down at Lockinge [422838] and Ardington Down [48], Marcham and Didcot [49], Compton, Hermitage and Hampstead Norreys [57], Aston Upthorpe Downs, Blewbury, Cholsey, Moulsoford Downs, Streatley (**LAN**) in 1956, Lowbury Hill in 1962 and Lollingdon Hill [58], Radley [59] and Sutton Courtenay Gravel Pits [518930], Kennington [50], Sulham Lane [67]. Recently from near Inholmes, south of Lambourn Woodlands, on the eastern bank [327747] of the Chieveley cutting where the B4001 goes under the M4 Motorway; 3 plants in bare ground on 23 August 2001, and from the cutting of the abandoned railway at Chilton [497855]. Atlas 2000: [48], [57], [58], [59], [50]

Galeopsis speciosa Mill. *Large-flowered Hemp-nettle* ○ th 7 ↓

Cultivated fields, roadsides and tips; rare and sporadic.

East Berks: “Near Park Place appearing among the clover crops and vetches, but not common” (Druce), oat field at Sonning (1897), Wellington College brickyards (1894). Bearwood (**RDG**) in 1930, Warren Row (1962). One more recent record from Smallmead tip (1974). Atlas 2000: [76]

West Berkshire. one relatively recent record from Wytham [40] in 1984. 19th century records from Shaw [46] and Wittenham [59]. Atlas 2000: [40]

Marrubium vulgare L. *White Horehound* ● hp 6 †

Roadsides and waste places; rare and sporadic in Druce's time, now extinct.

East Berks: formerly at Sandhurst, Wokingham, between Crazy Hill and Wargrave, between Hurley and Pinkneys Green, Jouldern's Ford, by the railway at Maidenhead. Roadsides and waysides on dry soils; rare and decreasing. Sutton's Nurseries in Reading (RNG) in 1891, Clewer (1918). Extinct. Formerly on the chalk along the Thames valley from Wargrave to Cookham and in the district around Wokingham and Sandhurst. Atlas 2000: no records

West Berks: extinct at most of its former sites in the Thames valley and on the eastern chalk. Chieveley [47], Frilford [49], Radley [59], Purley [67]. Atlas 2000: no records

Scutellaria x hybrida Strail = **S. galericulata x S. minor**
Scutellaria x nicholsonii Taubert

East Berks: Virginia Water in 1883 (RNG), Wokingham in 1897 and Windsor Great Park in 1970.

Teucrium scordium L. *Water Germander* hp 7 †

An extinct Berkshire plant, described from Neitford (St Neots) Meadow at Abingdon [5196] by Turner (1548) and Lightfoot (1780). It used to grow in calcareous ditches in Thames-side water meadows with wetland plants like *Menyanthes* and *Ranunculus lingua*. This community (plus *Sium latifolium* qv) ought to be reconstructed, in order to show how much the riverbank has been changed by boat traffic and by drainage of the adjacent water meadows.

East Berks: no records

West Berks: Abingdon (BM) in 1780, Godstow (BM) [40] in 1864 and 1909, in a fen at Wytham meads (BM) [40] in 1906 (RNG) and last in 1934 (RNG). Atlas 2000: no records

Ajuga genevensis L. *Cornish Bugle* ● hp 6 †

West Berks: a fodder alien that persisted from many years in chalk grassland near Churn [508838] in 1917 (OXF). Last seen in 1950 by D. McClintock (RNG). Also at Radley College pond in 1949.

Dracocephalum parviflorum Nutt. *American Dragon-head* ● hp 7 †

West Berks: a grain and bird-seed alien found as a casual on rubbish tips at Pangbourne [67] in 1958 (det. Kew) and Reading in 1958 (RNG).

Sideritis montana L. *Mountain Ironwort* ● hp 7 †

West Berks: a grain casual from Newbury [46] in 1918.

Nepeta cataria L. *Cat-mint* ○ hp 7 ↓

Hedges, wood margins, waysides, borders of fields, and sometimes in chalky cornfields on dry, calcareous soils in the Thames valley. Local and rather uncommon, and absent from considerable areas on the clay and heaths.

NVC: OV 16

Ascot: no records.

East Berks: first record; Sonning (1800). Near Silent Pool, Shinfield, frequent about Park Place, Stubbing's Heath, Maidenhead, Wargrave, Hurley, Bisham. Wargrave, Hurley [813818], Bisham, Maidenhead. Extinct at many of its former sites, now entirely restricted to the chalk of the western Thames valley from Wargrave to Cookham. <1% (1km²). Atlas 2000: [77], [78], [88]

West Berks: restricted to the Thames valley and to the eastern end of the chalk ridge [58]. Absent from the Kennet valley and the western part of the interior. Ashbury and Tuckmill Meadow [28], Watchfield [29], between Hatford and Buckland, Lamb and Flag quarry and Longworth pit [39], East Hanney, Kingston Bagpuize and Marcham [49], Cumnor [40], Aston Upthorpe Downs, East Hagbourne, West Hagbourne Moor, Downs Farm wood, Streatley and Kingstanding Hill [58], Sulham and Purley [67]. Atlas 2000: [28], [29], [39], [49], [40], [57], [58], [67]

Prunella laciniata (L.) L. *Cut-leaved Selfheal* ● hs 6 †
Prunella vulgaris L. var. laciniata L.

West Berks: one of the very few alien plants in Britain to survive in closed grassland. Tilehurst (**OXF**) [67] in 1903, and on Streatley golf course [58] in 1960. I have not been able to find it there.

Clinopodium ascendens (Jord.) Samp. *Common Calamint*
Calamintha montana
Calamintha ascendens Jordan
Calamintha sylvatica Bromf. subsp. *ascendens* (Jordan) P. Ball

hp 7 ↓

Dry roadsides and hedge-banks with sunny exposure, usually on gravelly soil or limestone; local and in small quantity in the Thames valley. Told from *C. calamintha* by the longer teeth of the lower calyx lobes (2-3mm rather than 1-2mm) and the non-protruding hairs of the throat of the calyx. The axillary flower clusters have a common stalk (cf. *C. vulgare*).

Silwood Park: introduced during research into the volatiles involved in host-plant detection by insects; now naturalised in several locations around the Header House and Silwood Bottom. Two plants by the CABI Greenhouses 15 July 1997. Locally abundant in Ashurst Four Acre Field, common over about 10 m² in the centre of the field, in full flower 3 August 1997 following spring cultivation. There were about 100 plants close to the William Penney side of Silwood bottom on 15 September 1994. It is still a persistent weed of the Student Allotments in July 2000. Below the *Alnus cordata* at the Head House greenhouses, escaped from plant pots in 1994 and still there in 1997. It came up from the seed bank when the Leyland cypress on North Gravel were felled; flowered in July 2000, but not seen since.

East Berks: Local and rather uncommon; borders of Bisham Wood at the top of the hill (1843), Park Place, Wargrave (1871). Woodley (**RDG**) in 1929, Bray (1922). Extinct at these native sites. Formerly restricted to the Thames valley. Now only an introduced species. <1% (1km²). Atlas 2000: [77], [96]

West Berks: rare and scattered (or extinct) in the Thames valley, with a few scattered stations in the Kennet and Pang valleys. Kingston Bagpuize (**RNG**) in 1967, Dry Sandford Pit, Marcham and Cothill [49], Greathouse Wood [57], East Hagbourne and Chilton [58], Brightwell [59], Ufton Nervet Church [66], Sulham [67], Wallingford [68], with pre-1897 records from Uffington [39], Cumnor [40], Streatley [58], Hinksey (**RNG**) [50] in 1893, Basildon [67]. Atlas 2000: [29], [36], [47], [49], [57], [58], [59], [66], [67], [68]

Clinopodium calamintha (L.) Stace *Lesser Calamint*
Melissa calamintha L.
Calamintha nepeta (L.) Savi
Calamintha nepeta (L.) Savi subsp. *glandulosa* (Req.) P. Ball

hp 7 ↓

Dry banks and wood margins. Local and rare; only in north Berkshire. Told from *C. ascendens* by its shorter calyx teeth (1-2mm rather than 2-4mm) and its covering of shorter hairs (0.1mm rather than more than 0.2mm).

East Berks: no records

West Berks: 20 plants in Stroud Copse [4407] in 1964, and at Daisy Bank Barrow Hills [514979] in 1963-79, with 100 plants in July 2001. There are older records from Bagley Wood [50] 1812-86 and Marcham (**RDG**) [4596] in 1912. Near Abbey fishponds at Abingdon [511981] in 2001. In the reserve at [512980] in 2002. Atlas 2000: [40], [59]

Clinopodium acinos (L.) Kuntze *Basil Thyme*
Thymus acinos L.
Calamintha arvensis
Calamintha acinos (L.) Clairv.
Acinos arvensis (Lam.) Dandy

th 5 ↓

Dry sandy and calcareous fields, dry banks, roadsides, bare places in calcareous grassland, fallow fields and railway cuttings; local, sporadic and usually in small quantity. Absent from south-east Berkshire.
 NVC: OV 39

East Berks: once frequent in cornfields near Marlow, Starve-all Farm, Remenham, Aston Lane, Hennerton, Wargrave, Maidenhead, Bisham, Bray, Sonning Hill, Arborfield. A white flowered form was seen near High Standing Hill in Cranbourne Chase. Reading, Twyford, Remenham, Hurley, Winter Hill. Now rare and confined to the chalk of the western Thames valley from Twyford to Cookham. 1% (1km²). Atlas 2000: [77], [88]

West Berks: extinct from many of its former stations in the interior, with most records from the east [57] and [58]; scattered elsewhere. Beckett Park [28], Inkpen [36], Shefford Woodlands and Membury airfield [37], Buckland [39], Pusey [39], Boxford [47], Wootton and Upper Seeds at Wytham [40], Hermitage, Compton, Yattendon, Hampstead Norreys and Aldworth [57], Aston Upthorpe Downs, Streatley golf course, Kingstanding Hill, The Holies and Lollingdon Hill [58], Pumney Farm [59], Sulham, west of Pangbourne Station and Basildon [67]. Atlas 2000: all except [28], [29], [47], [56], [50], [66], [68], [69]

Hyssopus officinalis L. *Hyssop*

• n 7 †

An occasional herb-garden plant, seldom found outside gardens.

West Berks: on a brick wall at Wire Lock, Denford [363681] in 1981 (det. D. McClintock).

Mentha arvensis L. *Corn Mint*
Mentha gentilis L.

hp 5 ↓

Damp cornfields, heaths, river-sides and damp woodland rides; locally frequent but absent from much of the chalk ridge. Told from *M. pulegium* by the absence of hairs in the mouth of the calyx, and from *M. x gracilis* and *M. x smithiana* by the small (1.5-2.5mm) calyx with triangular (not subulate) teeth.

NVC: OV 15,30

Ascot: local and rare. Frostfarm Plantation in 1999, Sunninghill Park in 2000.

East Berks: occasional in the west, but absent or rare to the east of 90. Recently at California Country Park, Temple, Windsor and on the edge of the R. Thames at Aston Ferry. 1% (1km²). Atlas 2000: all squares

West Berks: occasional in the Thames and Kennet valleys and to the west of 35, but absent from the rest of the interior. Most frequent on the Golden Ridge and in the north-west corner of the county, as at Ashdown Park and Shrivenham [28], Coleshill, Buscot, Longcot and Eaton Hastings [29], Kingston Lisle [38], and Baulking, Buckland and Longworth [39], Ilsley Bottom [48], Tubney and Wytham [40]. Atlas 2000: all except [69]

Mentha x verticillata L. *Whorled Mint* = **M. arvensis x M. aquatica**

• hp 8

Margins of rivers, canals, brooks, ditches and ponds, and in marshes, etc. Common and widely distributed. Woodland rides and damp places. Occasional but not often reported from calcareous soils. This is a hairy plant with a small calyx (< 3.5mm) and included stamens.

Ascot: rare. Coronation Road.

East Berks: banks of the R. Thames in Reading (**LAN**) in 1956, Leighton Park, Long Moor, Loddon Bridge, Hurst, Wellington College, Warren Row, Windsor Forest. Rare but scattered throughout. Recently at Farley Court, Eversley Bridge, Wellington College, Bracknell, Ashridgewood, Winkfield Row, Mount Skippet, North Town. 2% (1km²). Atlas 2000: all except [78], [96]

West Berks: rare in the Thames and Pang valleys, absent or extinct elsewhere. Pucketty Farm [39], Pusey Marsh [39], Appleton Lower Common [40], Farmoor [40], Wytham [40], Wasing pits [56], Hermitage [57], Stanford Dingley [57], Ufton Nervet [66], Bradfield and Tilehurst [67]. Atlas 2000: all except [28], [29], [37], [38], [47], [48], [58], [50], [68], [69]

Mentha x smithiana R.A.Graham *Tall Mint* = **M. arvensis x M. aquatica x M. spicata** • hp 8

This is an almost hairless plant with a larger calyx (> 3.5mm) and exerted stamens.

East Berks: waste ground, rare; Ascot in 1929 (**OXF**), Sonning (**BM**) in 1800. Atlas 2000: [77]

West Berks: Cothill pit [468996] in 1976 (**OXF**). Atlas 2000: [58]

Mentha x gracilis Sole *Bushy Mint* = **M. arvensis x M. spicata**

• hp 8 ↓

Mentha x gentilis auct., non L.
Mentha x cardiaca (Gray) Baker

This sterile hybrid has very short calyx teeth (< 1mm) and a short calyx tube (less than 2 times as long as wide) lacking any hairs in the mouth.

Ascot: prostrate plants on 16 September 2003, on bare ground on the demolition site in Sunninghill [939683] where the long-empty houses of Matthews Court had stood until the site was bulldozed in early 2003.

East Berks: a roadside in Reading in 1962 (**LAN**) (det. R.M. Harely). Atlas 2000: no records

West Berks: Newbury [46] in 1891 (**OXF**), a building site in Tilehurst [67] in 1962 (**LAN**), old allotments in Didcot [59] in 1975 (**OXF**) and at Heath End [56] in 1988. Atlas 2000: [50]

Mentha x piperita L. *Peppermint* = **M. aquatica x M. spicata**

• hp 8 ↓

Mentha x citrata Ehrh.
Mentha x dumetorum auct., non Schultes
Mentha x piperita L. var. citrata (Ehrh.) Briq.
Mentha x piperita L. nm. citrata (Ehrh.) J. Boivin

Pond-sides and wet places; local and rare. This plant has distinctly petiolate leaves and glabrous leaves and calyx tube. The Eau de Cologne Mint 'Citrate' has a rather sickly, lemony scent.

East Berks: very rare by the roadside opposite Highfield Farm Wargrave (1897), possibly a garden escape. Leighton Park (1962), near Reading bus station (1988). Forest Lodge (1999). <1% (1km²). Atlas 2000: [77], [96], [97]

West Berks: Uffington pond [38], Carswell [39], Cothill [49], Boars Hill [40], Streatley [58], Didcot [59], in ditches at Mortimer Station [66]. Atlas 2000: [29], [46], [49], [58]

Mentha spicata L. *Spear Mint*

○ hp 8 ↓

Mentha longifolia auct., non (L.) Hudson

Mentha scotica R.A. Graham

Persistent on roadsides, waste ground and rubbish tips, in small patches. This is a fertile plant with sessile, elongated (not round) leaves that smell of spearmint when crushed. It can be hairless or hairy, and is very hard to tell from its hybrids. Garden mints are infamous for their rampant rootstocks, and it is often recommended that they should be grown in buckets rather than in beds where they are liable to be invasive. Because of this habit, they are often thrown out, and are common on waste ground in towns and villages.

Silwood Park: rare on waste ground at the Cannon Crossroads in 1999.

Ascot: locally frequent on 16 September 2003, on bare ground on the demolition site in Sunninghill [939683] where the long-empty houses of Matthews Court had stood until the site was bulldozed in early 2003.

East Berks: near Twyford, Knowl Hill, Windsor. Wargrave (1918), Boulter's Lock, Odney Common. Riseley, Smallmead tip, Reading. Bracknell (1967), Cookham pit (1957). Scattered records from the Thames valley, rare or absent elsewhere. Very hairy plants on abandoned allotments between Reading West Junction and Cow Lane [702742] on 11 October 2003. 6% (1km²). Atlas 2000: all except [78]

West Berks: all but confined to the Thames and Kennet valleys. Shrivensham, Zulu Buildings [28], Watchfield, Buscot, Longcot and Beckett Park [29], Inkpen and Kintbury [36], Childrey [38], Baulking, Longworth, Pusey and Buckland [39], Newbury tip [46], West Ilsley [48], Cothill (OXF) and Frilford (OXF) [49], Bessels Leigh [40], Radley and Sutton Courtenay [59], South Hinksey [50], Sulham, Theale and Tilehurst (LAN) [67] in 1962. Atlas 2000: all except [47], [48], [68], [69]

Mentha x villosanervata Opiz *Sharp-toothed Mint* = ***M. spicata* x *M. longifolia***

● hp 8

Mentha x villosa auct., non Hudson

An established garden escape told from *M. spicata* and *M. x villosa* by the leaf teeth: these are acuminate and curve outwards and become patent in *M. x villosanervata* but the other two have forward-directed teeth (or the leaf shape is orbicular). Some old records of Horse Mint, *M. longifolia* (L.) Huds. are referable here. Ours is a grey-hairy plant with a very unpleasant smell.

West Berks: in a wayside at Upper Basildon [6075] on 4 August 2002.

Mentha pulegium L. *Pennyroyal*

hp 8 ↑

Damp grassland, margins of ponds, wet heaths, and margins of heathy pools; very local and decreasing until recently. This is very curious indeed. Here is a plant that is considered to be so rare as a native, that it deserves its very own nature reserve near Queens Eyot at Bray [914783]. In the reserve, however, it looks exactly like it does in New Zealand; that is to say, like a pernicious alien invader of pasture land. "Pennyroyal is so abundant in some [New Zealand] pastures that they appear completely purple from a distance when it is flowering" (Webb et al., 1988). The plant is known by the hairs in the throat of the calyx, and by the slightly unequal calyx teeth (the lower 2 teeth are narrower and longer than the 3 upper teeth). It is an increasing grass seed contaminant (Stace); it may also be benefiting from climate warming.

Silwood Park: local and recently established in lawns. Japanese Garden, one small patch (20cm diameter) in the wet lawn by the *Taxodium* on 1 September 2000. It is possible that it has been there for several years and only showed itself in 2000 because of the combination of low rabbit numbers and lax mowing in that year. It survived prolonged submersion during the floods of winter 2000-01 when the Japanese Garden was flooded for many weeks; it flowered again on 6 September 2001 but not seen since. William Penney on the flat part of the lawn at the western end of the building close to the Arboretum fence, a single patch (15cm diameter) in rabbit grazed turf on 15 August 2000. Still there in 2004.

East Berks: not seen by Druce in our area. Leighton Park in Reading [7371] in 1962. In the 'Pennyroyal Reserve' SSSI at Bray [912782] it grows in wet hollows in a pasture maintained by horse grazing. <1% (1km²). Atlas 2000: [96], [97]

West Berks: thought to be extinct, but recently refound (perhaps reintroduced with grass seed). Last seen on Wash Common [4564] in 1910, Mortimer (K) [6564] in 1930 and Burghfield Common [6566] in 1897, Tilehurst [6673] in 1805, and there is a 1918 record from Clay Hill [57]. Rediscovered by Susan Erskine at Shellingford [323941] in July 2000. Atlas 2000: [39]

Mentha requienii Benth. *Corsican Mint* • chh 6

A prostrate plant with tiny, thyme-like leaves, used for making 'fragrant paths' in gardens.

East Berks: rare on damp waste ground in towns: Windsor, Camberley (1982-2000). <1% (1km²).

Salvia pratensis L. *Meadow Clary* • hs 6 ↓

Chalk grassland, very rare, and a rare casual in sown fields. The petals have glandular hairs (see below). It is native in chalk grasslands nearby, 10km north of the county boundary in Oxfordshire.

NVC: CG 2

East Berks: no records

West Berks: rare, and extinct at more than half its former stations. Druce knew only of a solitary specimen from a field near Carswell [3297]. Unhill Bottom [5582] from 1909-58 (**OXF**), and from the edge of a clover field at Hungerford [3368] in 1922 (**OXF**). Field records from Arlington [4671] in 1946 and Stanford Dingley [5771] in 1945. Pre-1900 records from Weston [37], Bessels Leigh (**OXF**) [40] in 1895, between Hermitage and Yattendon [57], Upton [58]. Atlas 2000: no records.

Salvia verbenaca L. *Wild Clary* hs 5 ↓

This is our commonest *Salvia*, found in chalk grassland and on dry banks, sides of roads, railway banks, etc. Locally common, but absent from extensive areas of the county. A common component of wildflower mixes (a poor man's Meadow Clary if you like), sown in roadside landscaping schemes and such like. The plant has few if any glandular hairs on the petals, and the clear-coloured glandular hairs on the calyx are over-topped by long, wispy, non-glandular hairs.

East Berks: near Park Place (1897), roadside to Hurley (1897), near Loddon Bridge (1897). Dry calcareous banks (as *S. horminoides*); rare and decreasing. Not seen by Bowen in our area. Extinct from its Thames-side stations. Found as a casual at Whiteknights Park in the flower bed outside Chemistry (1980). Sown in wildflower mix used to landscape the verges of the Northern Relief Road in Bracknell [865707] in 1999; the plant is still hanging on, flowering in November 2001. <1% (1km²). Atlas 2000: [77]

West Berks: confined to the Thames valley, and absent from the Kennet valley and the interior. Watchfield and Great Coxwell Church [29], Kingston Lisle [38], east of Chingham Farm [325946], Hatford and Denchworth [39], formerly at Donnington Castle and Newbury [46], Frilford golf course, Marcham and Abingdon [49], Stroud Copse [40], Moulsoford, South Moreton Church and Blewbury [58], on the railway at Didcot, Radley and Barrow Hills [59], Hinksey [50], Tilehurst [67]. Atlas 2000: [29], [38], [39], [49], [40], [58], [59], [50]

Salvia viridis L. *Annual Clary* • hs 5 ↓
Salvia horminum L.

East Berks: a rare casual (1958) on a rubbish tip at Cookham. Woodley tip (1971) and on a bonfire site at Whiteknights Park (1980). Atlas 2000: no records

West Berks: Atlas 2000: [40]

Salvia nemorosa L. *Balkan Clary* • hs 5 †
Salvia sylvestris L.

East Berks: waste places, railway sides, etc. A grain alien found by Druce on the railway at Maidenhead in 1895 (**OXF**).

West Berks: Near Wytham Mill (**OXF**) and by the railway at Didcot pre-1897.

Salvia verticillata L. *Whorled Clary* • hs 6 ↓

A rare casual of waste places.

East Berks: on a rubbish heap in Windsor (1897), near Maidenhead (1897), near a brickyard in a field between Twyford and Ruscombe (1894). Established in small quantity on dry banks and railway sidings at Reading Station (1965). Now extinct. Atlas 2000: no records

West Berks: Letcombe Bassett [38], Didcot Station [59]. Formerly at Cothill (**OXF**) and Abingdon [49], Sinodun Hills [59] and South Hinksey [50] all pre-1918. Thought to be extinct, but rediscovered at Didcot Station in 1988 near the signal box at the Great Western Centre. Atlas 2000: [59]

HIPPURIDACEAE

Hippuris vulgaris L. *Mare's-tail*

hyd 6 ↓

A local speciality of slow streams, canals, ponds and ditches and muddy margins of larger rivers. Local and uncommon.
NVC: A 7,8,11,21; S 4

East Berks: local in broad ditches in Sonning meadows and at Maidenhead. Not seen by Bowen, and no Atlas records. In still occurs, however, in willow-shaded ponds at Cock Marsh (1999-2004). <1% (1km²). Atlas 2000: [88]

West Berks: occasional in the Kennet valley, rare in the Thames valley and absent elsewhere. Kintbury [36], Buckland Park [39], Hamstead Marshall, Newbury and Greenham [46], Wytham and growing through *Menyanthes trifoliata* in the pond at Jarn Mound in 2002 [40], Thatcham and Woolhampton [56], Hermitage and Stanford Dingley [57], Cholsey [58], Sutton Courtenay [59], Kennington [50], in the R. Pang at Bradfield [67], Wallingford [68]. Atlas 2000: [36], [39], [46], [40], [56], [57], [58], [59], [50], [67], [68]

CALLITRICHACEAE

Callitriche brutia Petagna *Pedunculate Water-starwort*

hyd 5 †

Callitriche pedunculata DC.

Callitriche intermedia Hoffm. subsp. *pedunculata* (DC.) Clapham

Muddy places in woods and by ponds, in shallow water often drying out in summer. This is usually a terrestrial plant. The details of the distributions of *C. brutia* and *C. hamulata* in Berkshire have not been worked out, because they are so difficult to tell apart. Fruits with a long stalk (2-10mm).

East Berks: Ambarrow, Earley, Windsor Park, Swinley. Not in Bowen. Atlas 2000: no records

West Berks: old clay pit at Hermitage [57] in 1966 (OXF). Atlas 2000: no records

Callitriche hamulata Kutz. ex W.D.J. Koch *Intermediate Water-starwort*

hyd 5

Callitriche intermedia Hoffm. subsp. *hamulata* (Kutz. ex Koch) Clapham

Callitriche brutia Petagna subsp. *hamulata* (Kutz. ex Koch) O. Bolòs and Vigo

Streams and ponds with acid water. It grows as an aquatic or as a terrestrial plant, typically in deeper water than *C. brutia*, which does not dry out in summer. Hard to tell from *C. brutia*. Its styles are persistent and reflexed.

NVC: A 2,11,15,19,23,24; OV 30,31,35; S 16

Ascot: local in acidic ponds from Englemere to Virginia Water.

East Berks: rare or overlooked. Local at Virginia Water and Sandhurst. Rapley Lake (1966), Sandhurst [829614] (1928, 1975). Jouldern's Ford [746634] (1977). Moor Green Lakes nature reserve [8062] in 1191 and 2001. Atlas 2000: [76], [86], [96], [97]

West Berks: in the R. Enborne at Enborne Row [451633] in 1977, in backwaters of the Thames at Streatley [596811]. Atlas 2000: [29], [36], [46], [57], [59]

SCROPHULARIACEAE

Verbascum virgatum Stokes *Twiggy Mullein*

• hs 6

A Silwood speciality of open waste ground, short grass, railways, forest tracks, sandpits. It is scarce as a native plant in Britain, where it is confined to Cornwall and Devon. Formerly a common escape from gardens, but now little cultivated. It has high seed production and a long-lived seed bank, so it can grow abundantly following soil disturbance, even though it was many years since the flowers were last seen at a site. Told from *V. blattaria* by the very short pedicels (shorter than the calyx), more than one flower per node, and the plant has stalked glands throughout.

Silwood Park: this is our commonest Mullein in most years. It is monocarpic (it flowers once then dies), and comes up from a large seed bank in numbers that vary greatly from year to year, depending upon the precise amount and timing of soil disturbance or removal of shade. On the compacted aggregate of the church car park at Ashurst, in rabbit grazed turf in the churchyard, and on the mossy graveyard paths (1979-2004). On dry disturbed ground around the Greenhouses and on the pot standing, South Lodge, formerly abundant in the (then) heather bed that separated the Cannon Path from the Croquet Lawn (1981-92 fluctuating widely in abundance from year to year), this population was down to 1 plant in July 2002 after the bed had grassed-over, Reactor Block, Buckhurst Road Entrance, Hayes Wood, Science Park, East Lodge. An enormous plant, prostrate to the ground for the first 1m, then bent vertically for more than 1m, just west of the main entrance to North Block in summer 1990. Another plant reached 2.5m in August 1994 at the base of the wall at West Block but apparently left no progeny. There were 25 plants by the Water Tank in June 2000 coming up from disturbed soil where the fibre optic cables had been laid, but they were gone by 2001. Cocoa Greenhouses,

with *V. blattaria*, in June 2000. Common as recruits that came up from the seed bank after the Leyland Cypresses on North Gravel were felled in May 2000; these plants flowered and died in July 2001, with none seen since then. There were 12 plants in flower by the gate into Ashurst Warren on 1 September 2003. A group of 6 big plants in gravel by the CABI Polytunnel in June 1004.

1 m ²	10 m ²	100 m ²	1000 m ²	10,000 m ²
0	0	0	5	13

Ascot: local and rare. On rubble of the demolished mansion at King's Beeches [934668] on 1 December 2003 growing with *Datura stramonium* and *V. thapsus*.

East Berks: not in Druce. Rare casual in dry waste places. Reading building site (**RNG**) in 1959, Wellington College (1962). Recently at Lines Road and Wellington College. <1% (1km²). Atlas 2000: [77], [86], [96]

West Berks: Newbury race course [46], waste ground at Abingdon [49], North Moreton [58] (**OXF**). On disturbed ground at Kingston Bagpuize [4098] in 2003. Atlas 2000: [58]

Verbascum x kernerii Fritsch = **V. phlomoides x V. thapsus**

West Berks: in a sandpit at Pusey [362964] in 1970 (det. R.C. Palmer).

Verbascum densiflorum Bertol. *Dense-flowered Mullein* ● hs 6
Verbascum thapsiforme Schrader

East Berks: a garden escape in South Reading. <1% (1km²). Atlas 2000: [76]

Verbascum x semialbum Chaub. = **V. thapsus x V. nigrum** hs 6
Verbascum x collinum Schrader, non Salisb.

By far the commonest hybrid in the genus. It has the upper 3 filaments with violet hairs and the lower 2 filaments with white hairs, and all the anthers are kidney-shaped.

Silwood Park: a tall plant with massive basal leaves amongst *V. nigrum* and *Rumex obtusifolius* in the north-east corner of Silwood Bottom on 1 August 2004.

East Berks: Woodley [77] in 1936.

West Berks: Frilford [49] in 1967, Fair Mile [58] in 1949.

Verbascum pulverulentum Vill. *Hoary Mullein* ● hs 7

A statuesque, yellow-flowered Mullein with a candelabra-branched inflorescence, and leaves that are greener (less white) than *V. thapsus*. All the stamens have terminal, kidney-shaped anthers, and all the filaments have white hairs. It is an alien in Berkshire (native in East Anglia).

East Berks: local and rare. A small, fluctuating population of 3-6 plants has persisted 1995-2004 on the pile of road stones in the dead-end of the old road by the roundabout at The Squirrels [929731]. <1% (1km²).

Verbascum speciosum Schrad. *Hungarian Mullein* ● hs 7

This is the commonest of the big, white-woolly garden plants that have a much branched (candelabra) inflorescence. All 5 of the anthers are kidney-shaped (i.e. the lower 2 are not decurrent), and the filament hairs are white (not purple). Told by its dense, uniform pubescence from the very similar *V. pulverulentum* which progressively loses its mealy pubescence as it matures.

West Berks: on waste ground by a chicken run at Kingston Bagpuize [4098] in July 2003. In the trackbed of the Great Western in the cutting at Purley between Tilehurst and Pangbourne [6576] in June 2004.

Verbascum lychnitis L. *White Mullein* ● hs 7

Casual on waysides, dry railway cuttings, waste places and walls; very rare. A typically white-flowered mullein of waste places and disturbed ground on calcareous soils (e.g. in recently felled woodland, on railway embankments, new roadside verges). Often found with other *Verbascum* spp. with which it hybridizes. Said to be biennial, but potentially a repeat-flowering perennial. It has a long-lived seed bank and was a major beneficiary of the great storm of 16 October 1987, regenerating in the disturbed soil left by uprooted trees. Told by the white flowers with white (not violet) hairs on the anther filaments, green leaves, and its long (> 6mm) pedicels.

Ascot: an old record from Sunninghill (**OXF**) in 1904. Not seen since.

East Berks: Sonning Lane, roadside near Wargrave Hill (**OXF**) in 1904 and on wall tops. Rare. On Plateau Gravels near Twyford Station (1962), by the railway at Ruscombe (**RNG**) in 1963 and 1980. <1% (1km²). Atlas 2000: [77]

West Berks: Sunningwell [40], Tilehurst [67]. Atlas 2000: [40]

Scrophularia umbrosa Dumort. *Green Figwort*

hp 7

A local speciality that is plentiful on both sides of the stream by the watercress beds of Shalbourne Stream near Standen Manor, close to the Wiltshire border. This is very cunning, because a single plant population gets to contribute to the biodiversity of two different counties. Note that the modern county boundaries are different from the boundaries of v.c.22 in this corner of Hampshire, Wiltshire and Berkshire. Told from *S. auriculata* by its bifid staminode with two diverging lobes at the apex (the staminode of *S. auriculata* is entire and orbicular), serrate not crenate leaf margins, lack of paired basal leaf lobes, and by the fact that the inflorescence is interspersed with leaf-like (not narrow, scale-like) bracts.

West Berks: not in Druce. Stream banks on calcareous, nutrient-rich mud by the Shalbourne Stream; confined to [36]. On a stream bank at Shalbourne on the Wiltshire border [316636] in 1987, and at East Court [320647] (1965) and Standen Manor [325663] (1948). The edges of the old watercress beds were badly overgrown by nettles in 2001, but the plant is still found on the streamside between Shalbourne and Standen Manor [317643] (1979-2004). Atlas 2000: [36]

Scrophularia vernalis L. *Yellow Figwort*

hp 4 ↓

A local speciality of heaths and bushy places that is told from all the other figworts by the absence of a staminode, and by the equal size of the corolla lobes (they are not organised into upper and lower lips). The flowers are yellow not brown.

East Berks: very rare in plantations, hedge-banks and gardens; rare and sometimes sporadic. Reading University (1953 and 1966). Bonfire site in Whiteknights Park (1978); still in Whiteknights in 2003. <1% (1km²). Atlas 2000: [77]

West Berks: very local on Bucklebury Upper Common at the boundary of [56] and [57]. Woolhampton and Aldermaston Court [56], Marlston [57], and recently (1987) in a small wood north of Bucklebury next to New Barn Farm [552712] and in the hedge of Little Acres, The Slade [533700]. Locally frequent in the woodland garden and scattered in the herbaceous borders at Kingston Bagpuize House [407979] in April 2001. Atlas 2000: [56], [57], [66]

Mimulus moschatus Douglas ex Lindl. *Musk*

• hp 7 ↓

Margins of ornamental lakes and damp rockeries; very local and rare. Usually a garden outcast with us, but there are a few populations that look more nearly naturalised. Much less widely naturalised than it is in northern and western Britain.

Silwood Park: extinct. There is a record from 1972, but I can not find out anything more about it. In damp grass at the shallow end of the pond in the Japanese Garden in 1980, but long gone. South Gravel: a large patch on a former bonfire site where the track to North Gravel crossed the Cannon Path by the holly stump in September 1983. The site was destroyed during construction of the Science Park in 1987.

Ascot: no records

East Berks: occurred in a naturalized condition in a small ditch by the railway between Sandhurst and Wellington College (1918) (**RNG**). There was no garden or signal box in the immediate vicinity to act as a source or origin. Leighton Park (1962), Whiteknights Park (1965). <1% (1km²). Atlas 2000: [77].

West Berks: Sandleford Priory [4764] in 1971 and Benham Park [4467] in 1986 (**RNG**). Atlas 2000: no records

Limosella aquatica L. *Mudwort*

th 6 †

A nationally scarce species of wet sandy mud by ponds, often dried out in summer, rare and sporadic; now apparently extinct in Berkshire. It grows on exposed mud at the edges of rivers, lakes, reservoirs, pools, ditches and winter-flooded ruts in tracks and unmetalled roads, often found with *Eleocharis acicularis* (now itself very rare in Berkshire), *Gnaphalium uliginosum*, *Juncus bufonius* and *Rorippa palustris*. It germinates in early summer when the water level falls and ripens its seed before autumn. The seed bank is long-lived, and so plants can be refound after several years during which they did not show themselves. Long known from the northern bank of the R. Thames in Port Meadow, Oxford [4806] and [5006] but these sites are just over the Oxfordshire border in v.c.23.

NVC: OV 31,35

East Berks: muddy ditches, very rare and local near Sandhurst (1896). By the railway between Sandhurst and Wellington College (1896) (**OXF**). Worth looking for in the Trilakes area on the Hampshire border.

West Berks: in mud at Wash Bridge by the R. Enborne [4560] in 1906 (**BM** and **OXF**) and 1935 on both sides of the Hampshire/Berkshire border. Not seen recently.

Asarina procumbens Mill. *Trailing Snapdragon*
Antirrhinum asarina L.

• hp 7

An uncommon garden plant of rockeries, stone terraces and old walls in sun. An unmistakably sticky plant.

West Berks: rarely found as a garden escape as at Faringdon in 1998.

Cymbalaria pallida (Ten.) Wettst. *Italian Toadflax*
Antirrhinum pallidum Ten.

• hp 6

A pubescent garden plant with much bigger flowers than *C. muralis* (15-25mm rather than 9-15mm).

West Berks: on stonework at Benham Park [4467] in 1986 (RNG).

Linaria x sepium G.J. Allman = **L. vulgaris x L. repens**

This is something of a local speciality. As evidence of the hybrid origin of these plants, Druce points out that until 1890 the only plant to be found in Oxford was *L. vulgaris*. "About that date a space of ground between the Great Western and the London and North-western Railways was filled up with chalk rubble which had been brought from the chalk district of Berkshire near Upton. With the chalk, the seeds of many chalk plants were introduced. In the year 1890 the chalk was covered with a profuse growth of *Iberis amara*, *Picris hieracioides* and less plentifully with *Thymus*, *Daucus*, *Linaria repens*, *Centaurea nigra*, *Verbascum thapsus*, *Campanula glomerata*, *Festuca rubra*, *Bromopsis erecta*, etc. *Linaria vulgaris* which had previously existed in the vicinity, was also common, but no hybrids were seen that season. In the following year, however, hybrid plants occurred in great quantity [and by 1892] an almost unbroken chain of intermediates between *L. repens* and *L. vulgaris* could be found" (Druce). The corolla is typically pale yellow with violet veins and intermediate in size and shape compared with the parents. Plants are fertile and can form hybrid swarms in which plants close to either parent can be found.

East Berks: Druce knew the hybrid from south of the Thames "near Henley". Railway banks and waste places. Reading (RNG) in 1987. Wargrave (1963), Cookham railway (1958).

West Berks: pre-1897 records from Upton and Moulsoford Downs [58], Didcot [59], and Reading [77]. Recent records (mostly from the railway) from Enborne [46], east of Bulls Lock [56], Moulsoford and East Hagbourne [58], heaped ballast at Didcot Station [59], South Hinksey (RNG) and Kennington [50], Sulham (LAN), Nunhide Lane and Basildon [67]. Atlas 2000: no records

Linaria x dominii Druce = **L. purpurea x L. repens**

A fertile hybrid with intermediate flower colour, sometimes segregating to give hybrid swarms.

West Berks: on the railway bank at Hermitage [5173] in 1972-74 (det. Kew).

Linaria repens (L.) Mill. *Pale Toadflax*
Antirrhinum repens L.

○ hp 6 ↓

Bare chalk, calcareous arable fields, railway banks, cinder tracks, walls and dry stony ground; "locally abundant, evincing a decided preference for dry chalky soil" (the species gets nearly 3 pages in Druce who was fascinated by the hybrids with *L. vulgaris*). Occasional in the Thames valley, rare or absent elsewhere.

East Berks: Henley Hill (HULL) in 1851, railway between Wargrave and Henley, Park Place, Wargrave, Starve-all Farm Crowthorne, Marsh Mill, Hennerton, Windsor, on chalk ballast at Reading, Bray, between Twyford and Maidenhead. All but restricted to the Thames valley, and commoner in the west than the east (extinct in Windsor and Old Windsor). Rare to the south of 75. Recently at Culham Court and Temple Golf Course. <1% (1km²). Atlas 2000: [77], [78], [87], [88]

West Berks: occasional in the Thames valley from Abingdon [49] down to Reading [67] but absent from the Northern Loop and from the upper reaches of the Thames. Rare in the extreme south-west [36] and absent elsewhere. Segsbury [38], at the railway crossing east of Moor Hill Farm [311904], golf course east of Buckland Copse [39], by the railway at Newbury [46], Ashampstead [57], Moulsoford Down, North Unhill Bank, Upton, Lollingdon Hill, Lowbury and Streatley [58], in chalk rubble by the railway at Didcot [59], Basildon, in a clay pit between Theale and Purley, Pangbourne and Sulham [67]. Atlas 2000: [28], [29], [38], [46], [48], [49], [56], [57], [58], [59], [50], [66], [67]

Veronica x lackschewitzii J.B. Keller = **V. anagallis-aquatica x V. catenata**

Often more robust with longer racemes than either parent, and partially fertile. Occurs in places where *V. catenata* grows with *V. anagallis-aquatica*.

East Berks: Odney Common [8585] in 1958 (det. Kew).

West Berks: by the R. Kennet at Denford Manor Farm [351681], by the R. Lambourn at East Garston [361769], [379755] and Speen [458686], by the canal at Newbury [46], and Rack Marsh [453693], by the R. Enborne at Bishops Green [453693], and by the R. Kennet at [520656] and [572667], all post-1978. Recently on Abingdon Common [472962] in 2002.

Veronica catenata Pennell *Pink Water-Speedwell*
 Veronica aquatica Bernh., non Gray
 Veronica anagallis-aquatica L. subsp. aquatica Nyman

hel 6 ↓

Margins of rivers, streams and ponds on nutrient-rich mud, in small quantity. Occasional, but absent from the chalk ridge and from acid habitats in south-east Berkshire. Like *V. beccabunga* but corolla pinkish with patent pedicels in fruit. It grows with *V. anagallis-aquatica* but is much less common.

NVC: OV 32; S 23

East Berks: rare in the western reaches of the R. Thames from Sonning to Cookham. Locally frequent at Cock Marsh. In an acid pond at South Lake [755722] in 1972. <1% (1km²).

West Berks: rare along the whole length of the Thames from Lechlade [29] to Reading [67] and in the south-eastern parts of the Kennet valley. Rare and scattered in the interior. Recently, by the R. Cole west of Snowswick Farm [214962], Shellingford [323941], on wet ground south of Shrivenham cemetery [243883], by the R. Lambourn [475683] and by the R. Thames at Wytham Meads Ditches [4609]. Little Wittenham [59]. Gravel pit at Aldermaston (**LAN**) in 1960, and by the canal between Theale and Aldermaston [66] in 1982.

Parahebe catarractae (Forst. f.) W. Oliv.

• chh 6

An uncommon rockery plant, rarely found outside gardens.

Ascot: very local and rare but long persistent on a shady grave in South Ascot churchyard (1989-2001).

West Berks: very rare. Self-sown in cracks in paving on a housing estate in Didcot [5289] in 1999.

Euphrasia anglica Pugsley

th 5

Euphrasia hirtella auct., non Jordan ex Reuter

Euphrasia officinalis L. subsp. anglica (Pugsley) Silverside

Golf courses, rides in pine plantations, lawns and grassland on acid, sandy soils. Middle and upper leaves with long-stalked glandular hairs, stems flexuous, lowest flower at node 5-8. The first eyebright into flower each year.

East Berks: not in Druce. Confined to East Berkshire, where it is locally frequent on the acid sands. Coleman's Moor (**OXF**) in 1903. Bearwood Church, Wokingham, Heath Lake, Rapley Lake, Tower Hill, Windsor Great Park, Woodside (all det. P.F. Yeo). The are old records from Maidenhead Thicket, but the area was searched thoroughly in August 2003 by Alan Showler without finding the plant. Local, on the heaths and golf courses along the Surrey border from Sandhurst to Virginia Water. Commonest in untrampled rides in Bracknell Forest as at Penny Hill, Upper Star Post and Hut Hill in May 2004. <1% (1km²). Atlas 2000: [76], [86], [97]

West Berks: no records.

Euphrasia anglica x nemorosa

Euphrasia x glanduligera auct., non Wettst.

East Berks: recorded once from Wellington College in 1913 (**RNG**), but worth looking for in East Berkshire where the parents grow together.

[**Euphrasia anglica x micrantha**]

Not recorded from Berkshire, but worth looking for in the heathy parts of East Berkshire where the parents grow together.

Euphrasia anglica x confusa

East Berks: there is an undated record in Stace (1975) (det. P.F. Yeo) from Windsor Great Park (no specimen).

Euphrasia arctica ssp. **borealis** (F. Towns) Yeo

th 7

West Berks: there is an Atlas 2000 record from [46] but it is not supported by a specimen.

Euphrasia confusa Pugsley

th 7

West Berks: there is an Atlas 2000 record from [36] but it is not supported by a specimen.

Euphrasia nemorosa x pseudokernerii

Not recorded from East Berkshire, but worth looking for in chalk grasslands where the parents grow together.

West Berks: Inkpen Downs [36] in 1965 (det. P.F. Yeo).

[Euphrasia nemorosa x micrantha]

Euphrasia ? x areschougii Wettst.

Not recorded from Berkshire, but worth looking for where the parents grow together.

Euphrasia pseudokernerii Pugsley

th 8

A very local lowland plant of grazed, well-drained, herb-rich turf on chalk, often on higher slopes than *E. nemorosa* (with which, confusingly, it hybridises). Does not normally flower before August or even September. Middle leaves without long-stalked glands, but differing from *E. nemorosa* in its capsule much shorter than the calyx, and teeth of bracts aristate (rather than acuminate). The lowest flowers occur high up on the stem (nodes 10-16). Confined to chalk grassland.

NVC: CG 2

East Berks: not in Druce. Short chalk grassland on shallow soils; local and uncommon. Still in the chalk grassland (National Trust) above Cock Marsh in 1999-2004 [885867]. Older records from Winter Hill and Cookham Down probably refer to this same site. <1% (1km²). Atlas 2000: [88]

West Berks: chalk downs above Inkpen [36], Stubbs Wood [37], Nutwood [38], Streatley golf course [58] (all det. P.F. Yeo). Whitehorse Hill and Dragon Hill [38]. Atlas 2000: [28], [36], [37], [38], [48], [58]

Euphrasia micrantha Rchb.

th 7 ↓

Euphrasia gracilis (Fries) Drejer

Euphrasia ? rhumica Pugsley

This slender, erect, dark purple coloured plant occurs in open places on acid, sandy heaths. It has flowers 6.5mm in length, tiny leaves, long internodes, and the calyx teeth exceed the fruit.

East Berks: Wellington College (**RNG**) (1918-27). Locally frequent in open roadside heathy vegetation south-west of Lower Star Post (1970-2004) and on gravel tracks on the firing ranges at Poppy Hills (2002). <1% (1km²). Atlas 2000: [86]

West Berks: uncommon on heathy ground. Found in Greenham Common [46] and [56] in 1835 (**BM**) and still frequent there in 2001-03. At Three Firs Common [66] in 1926 (**RNG**). Atlas 2000: [56]

Odontites jaubertianus (Boreau) D. Dietr. ex Walp. *French Bartsia*

• th 6

Euphrasia jaubertiana Boreau

Odontites luteus sensu Bowen, non (L.) Clairv.

Odontites jaubertianus subsp. **chrysanthus** (Boreau) P. Fourn.

Odontites chrysanthus Boreau

A local speciality of short heathy turf. These are its only British stations.

West Berks: long established on a gravelly heath at AWRE Aldermaston [584629] (**RNG**) but it is not known how the plant got there. It was abundant in the 1960s but is now much reduced (down to 16 plants in 1988 at [600645]. A single plant was found by Wasing Wood [584629] in 1983. Also known from a lay-by on Bury's Bank Road by Bowdown House north of Greenham Common [501653] (**RNG**) between 1970 and 1976, but not seen since.

Odontites vernus subsp. **vernus**

th 5

Found "chiefly in cornfields, where it is not infrequent amongst the stubble" (Druce), pastures, waysides, woodland rides and grass tracks (as *Bartsia odontites*); common and generally distributed except on ground that has never been cultivated. Branches few (up to 4 pairs), less spreading (less than 50 degrees to the stem), spring flowering.

East Berks: Riseley, Wargrave, Bisham, Windsor, Wokingham, Sandhurst (as *O. verna*); much less common than subsp. *serotinus*. Not in Silwood Park. Atlas 2000: no records

West Berks: Shrivenham [28], Faringdon [29], Hungerford, Woodhay and Kintbury [36], Uffington and Wantage [38], Lockinge [48], Cothill [49], Wootton, Wytham and Eaton Hastings [40], Appleford and Radley [59], Ferry Hinksey [50], Mortimer and Padworth [66], Bradfield, Purley, Sulham, Tilehurst, Southcote, Englefield and Theale [67]. Atlas 2000: no records

Parentucellia viscosa (L.) Caruel *Yellow Bartsia*

th 6 ↓

Bartsia viscosa L.

Hemiparasitic annual of damp grassy places on sandy soils including tracksides and heavily grazed patches reclaimed from heath. Typically found with *Aira caryophyllea*, *Centaurium erythraea* and *Vulpia bromoides*. Very rare, and probably introduced.

East Berks: not in Druce or Bowen. Atlas record [98] was probably introduced or in v.c.24. Atlas 2000: no records

West Berks: a single early record from wet grassland at Yattendon [5574] in 1969. John Killick discovered the plant by a ditch on the (then) new Didcot link road [5090] in 1982. Found in a field on the outskirts of Faringdon [298951] by Susan Erskine on 12 August 2001, and in set-aside on Frilford Heath [445975] by John Killick in 2001. Atlas 2000: no records

Pedicularis palustris L. *Marsh Lousewort* th 5 ↓

Fens, peat bogs, marshes and wet meadows on nutrient-rich soils. Once frequent, now on the verge of extinction. One of our great losses, and a real shame. Strenuous efforts ought to be made to reinstate a number of the wet Thames-side meadows. Decreasing under agricultural improvement of meadows (drainage and fertilisers). Single erect stem, corolla with one terminal and two pairs of lateral teeth.

NVC: M 13,15,22; S 25

Ascot: very few recent records. Druce knew the plant from Sunningdale (although this may have been Sunningwell Bog). There is a single surviving station at Swinley Brick Pits where it was last seen in 1988.

East Berks: "Locally abundant in the Thames meadows, but absent from considerable areas. The meadows near Hurley I have seen quite crimson from the profusion of this semi-parasitic plant. Hennerton, Warren Row, very fine in marshy meadows to the left of the first lane leading from the Henley Road to Sir W. Clayton's" (Druce). Sonning meadows, Coleman's Moor, Riseley, Ambarrow, Finchampstead, Long Moor, Wokingham, Bagshot, Easthampstead, Old Windsor, Windsor Great Park, Bracknell. Not seen by Bowen in any of these sites. Evidently extinct at all its Thames-side stations. <1% (1km²). Atlas 2000: [86], [96]

West Berks: extinct at all but a handful of its former stations: surviving in the Northern Loop and the western Kennet valley [36]. Hungerford and Kintbury meads [36], Barrow Farm Fen, Gozzards Ford, Frilford and Cothill fen [49], Lashford Lane, Wootton fen and Wytham water meadows [40]. Pre-1950 records exist for Radley meads [59] and by the canal at Thatcham [56]. Before the turn of the century, there were 'luxuriant' populations from Kennington [50] and Abingdon [49], downstream to Pangbourne [67] and throughout the eastern parts of the Kennet valley [56] and [66]. Atlas 2000: [36], [49], [40], [59]

Pedicularis sylvatica L. *Lousewort* hp 4

OROBANCHACEAE

Lathraea squamaria L. *Toothwort* grh 4 ↓

A charismatic, ghost-white plant of shady, damp woods. Parasitic on the roots of *Corylus* and *Ulmus* in steep woods.

East Berks: no records in Druce or Bowen. Atlas 2000: [77]

West Berks: rare in two centres: on the Northern Loop and in the western Kennet valley. Long Copse close to Cumnor Hill [40] in 1820 and 1964, near Pusey and Buckland [39] in 1860 (now extinct), Irish Hill Wood Kintbury [47] in 1896 and 1960, Hungerford [36] in 1930, Rivar Copse [36] in 1955, Yattendon Court [57] in 1959, Foxley Court [36] in 1963, Cake Wood [36] in 1966, White Shute Hill [37] in 1984, Wytham [40] in 1987. Atlas 2000: [36], [37], [46], [40], [57]

Lathraea clandestina L. *Purple Toothwort* ● grh 4

A wonderfully bizarre garden plant. Parasitic on *Corylus* and *Salix* in damp, shady places; very local but increasingly popular (introduced in damp grass beneath willows on some of the larger estates).

Ascot: naturalized in damp grass in gardens in Ascot and Sunningdale under weeping willow.

East Berks: not in Druce or Bowen for our area.

West Berks: Newbury [46] in 1961, Crookham Green [56] in 1966, Prospect Park in Reading (**RDG**) [67] 1959-63 and 1995-99, Tilehurst (**LAN**) [67] in 1956, and by the R. Enborne at Brimpton [5663] in 1984-87. Atlas 2000: all except [46], [56]

Orobanche rapum-genistae Thuill. *Greater Broomrape* p 5 †

Parasitic on *Cytisus scoparius* on dry heaths. Long extinct (no twentieth century records).

East Berks: the is a record from Wargrave pre-1897. Atlas 2000: no records

West Berks: nineteenth century records from Weston [37], Snelsmore and Curridge Commons [47] in 1896 (**OXF**), and from Long Lane in Hermitage [57] in 1839. Atlas 2000: no records

Orobanche elatior Sutton *Knapweed Broomrape*
Orobanche major L.

p 6 ↓

Parasitic on *Centaurea scabiosa* in calcareous grassland and by roadsides usually in small quantity. Local and absent from east Berkshire. This is our only really big Broomrape.
 NVC: CG 3

East Berks: a single record from Reading, now extinct. Atlas 2000: no records

West Berks: over 1000 plants at Wayland's Smithy [28] in 1962, Odstone Coombes, Knighton Coombe and Shrivenham [28], by the path from Old Stone Hill to Ashbury [275856], Faringdon pits [285942], below Walbury Hill, Prosperous, Hungerford and West Woodhay [36], Wether Down Lambourn [323815], on the Ridgeway at Whitehorse Hill [3086], Bowling Green Farm [304950], Pusey [39], East Ilsley and East Hendred Downs [48], Wootton and Wytham [40], by the railway at Hermitage, Aldworth (**LAN**) and Hampstead Norreys [57], Streatley and Churn rifle range [58], Radley pit [59], near Wick Hall [515982], Nunhide Lane and Sulham [67]. Atlas 2000: all except [47], [49], [56], [50], [66], [68], [69]

Orobanche crenata Forssk. *Bean Broomrape*

• p 6 †

West Berks: on *Pelargonium* in the garden of Cholsey Hospital [5886] in 1938 (**OXF**).

Orobanche hederæ Duby *Ivy Broomrape*

• p 6 ↓

East Berks: on ivy in the Library Beds at Whiteknights Park in 1985 (**RNG**), but gone by 1986.

West Berks: on ivy in the front garden of 17b Park Crescent Abingdon [490974] in 2002.

LENTIBULARIACEAE

Pinguicula vulgaris L. *Common Butterwort*

hr 5 ↓

Peaty bogs. Very local; "apparently absent from The Pang, Kennet and Loddon districts, but it is difficult to suggest a reason for its not occurring in the extensive bogs which are to be found in them" (Druce). Old peat cuttings and fens. Very local and confined to north Berkshire.
 NVC: M 13

East Berks: no records

West Berks: recently at Snelsmore Common [47], Frilford Heath golf course [442986] and Cothill fen [49] and Wootton fen [40]. Formerly (pre-1897) at Tubney [49], Boars Hill [40], West Hagbourne [58], Kennington [50].

Utricularia vulgaris L. *Greater Bladderwort*

hyd 7 ↓

Slow streams, ditches, ponds, and canals preferring stagnant water. Nutrient-rich ditches and ponds in the Thames valley. Locally frequent but uncommon and flowering sporadically. Extinct at most of its former sites.

East Berks: rare or extinct in the western Thames from Reading down to Cookham. Dunstan Green Sonning, pond at the foot of Cookham Down, near Wargrave, Hurley, by the Thames in a marsh near Old Windsor, in good flower (1895). Sonning (**BM**) in 1800. Extinct in Old Windsor (last seen 1974). Littlejohns Farm at Reading (**LAN**) in 1957. Most recently at Cock Marsh (1999). <1% (1km²).

West Berks: scattered in the Thames valley from Wytham down to Pangbourne, and in the western reaches of the Kennet valley. Kintbury and Newbury [36], Hamstead Marshall [46], Wytham and Bablockhythe [40] (**OXF**), Thrupp [59], Kennington pits, Iffley Lasher (**OXF**) [50], Burghfield pit [66], Pangbourne and Basildon [67]. Atlas 2000: no records

Utricularia australis R. Br. *Bladderwort*

hyd 7 †

Utricularia vulgaris auct., non L.
Utricularia major auct., non Schmidel
Utricularia neglecta Lehm.

East Berks: Druce knew the plant from Sandhurst Royal Military Academy in 1897 (no specimen).

West Berks: recorded by Druce from Cothill fen (**OXF**) [4595] in 1893, 1895 and 1896 (det. P.M. Hall). Last reported from Barrow Farm Fen [469977] in 1971. There are some more recent field records, but in the absence of specimens these are best treated as doubtful. Probably extinct.

[Utricularia minor L. *Lesser Bladderwort*]

Utricularia bremii auct., non Heer

No reliable records or specimens.

CAMPANULACEAE

Campanula patula L. *Spreading Bellflower* hs 7 †

Casual in fields recently laid down to grass. Dry banks, very local and rare.

West Berks: Mortimer [66] in 1896, on Plateau Gravel near Bucklebury (**OXF**) [57] in 1925-30, Yattendon [57] in 1931, and Marlston [537710] in 1956-68 (**LAN**).

Campanula rapunculus L. *Rampion Bellflower* o hs 7 ↓

Dry grassland; very rare and decreasing.

East Berks: near Wokingham (1865), and in a grass field between Ascot and Binfield (Chavey Down, (**OXF**) in 1895). Extinct at these sites according to Bowen.

West Berks: only one post-1960 record from Bucklebury Church [553709]. There were 19th century records from Newbury [46], Bessels Leigh (**OXF**) [40], Bagley Wood [50]. Atlas 2000: [40]

Campanula lactiflora M. Bieb. *Milky Bellflower* ● hs 6
Gadellia lactiflora (M. Bieb.) T.V. Schul'kina

East Berks: this enormous plant (up to 2m tall) self-seeds freely in gardens, but is rather uncommon as a garden escape. On rough ground and banks in villages; Sunninghill (1998). <1% (1km²).

Campanula persicifolia L. *Peach-leaved Bellflower* ● hs 6

An essential component of the cottage garden plant community. Abundantly self-seeded and often found outside gardens on pavements, beneath walls and on open bare ground in villages. Dramatically increased or previously under-recorded.

Silwood Park: on Garden Wood Bank from imported topsoil in both blue- and white-flowered varieties in June 1991. Ashurst Church, several places in Cheapside Village, Old Orchard, Drive Lawns.

Ascot: Fernbank Road, Coronation Road, Ascot Station, South Ascot, Sunninghill, Upper Village Road, Charters Road, Locks Ride.

East Berks: not in Druce. In most of the villages and all of the towns. In Sonning [7575], people mow around these plants when they cut the grassy banks. Rare between Windsor and Winkfield. 24% (1km²). Atlas 2000: all except [78]

West Berks: common on dry ground in Sutton Courtenay [59] in 1998 and in the grounds of the Old Rectory at Burghfield [6668] in 2004. Atlas 2000: all except [29], [36], [47], [48], [57], [58], [69]

Campanula medium L. *Canterbury-bells* ● hs 5

A cottage garden plant, occasionally self-seeding on waste ground. There are 3 types: single with an upright green calyx, cup-and-saucer (also known as 'Calycanthema') with the calyx held horizontally and concolorous with the bell, and double with petaloid stamens.

East Berks: not in Druce. Rare casual at Cookham Dean pit (1959). On bulldozed gravel at Reading Bridge [718739] and in the old nursery grounds at Suttons [733737] in 1979. Bulmershe [7573] in 2002. 1% (1km²). Atlas 2000: all except [78], [96]

West Berks: Seven Barrows [38] in 1963, Cainfield quarry [39] in 1965. Atlas 2000: [46]

Campanula alliariifolia Willd. *Cornish Bellflower* ● hs 6

East Berks: a garden escape most commonly seen on railway embankments. Sunningdale (1994).

Campanula pyramidalis L. *Chimney Bellflower*

• h 5

East Berks: called Chimney Bellflower because the plant was used in fireplace flower arrangements in August when the fire was not needed. Self-seeds on walls where, like *Antirrhinum*s, it can become quite long-lived. Windsor Castle, 1997. <1% (1km²).

Campanula portenschlagiana Schult. *Adria Bellflower*

• h 5

Garden walls. People have great difficulty remembering which is which amongst the two commonly naturalised Bellflowers that grow on garden walls. It is best, perhaps, to think of them as “Posh” and “Port”. Port has deep, bell-shaped, flowers, while Posh has flat, star-shaped flowers, and is much more abundant. Port is deep dark Oxford blue, while Posh is pale Cambridge blue.

Ascot: locally common on walls in villages. Ascot Station, Sunninghill (1999), rare on graves in Sunningdale churchyard (2001).

East Berks: not in Druce or Bowen. 11% (1km²). Atlas 2000: all except [78]

West Berks: particularly common in Faringdon [2895] in July 2002. Atlas 2000: [28], [29], [37], [38], [46], [49], [40], [50], [66], [68]

Campanula latifolia L. *Giant Bellflower*

hs 7

This tall plant seeds itself freely in gardens and escapes quite often on waste ground and pathsides in villages. Calyx teeth erect or erecto-patent; middle stem leaves sessile with cuneate bases.

NVC: W 8

East Berks: not in Druce. Whiteknights Park (1849) and again in the Wilderness in 1984. <1% (1km²). Atlas 2000: [77]

West Berks: Pusey House [39], Snelsmore East Common and Curridge [47], Frilford [49] and planted at Jarn Mound [40]. Atlas 2000: [40], [57]

Campanula rapunculoides L. *Creeping Bellflower*

• hs 7

Dry woods, banks, hedges, plantations, gardens and waste ground near houses. Rare but persistent garden escape. A patch-forming plant with calyx-teeth patent or reflexed. A beautiful but terrifying weed, spreading both by underground runners and self-sowing.

Silwood Park: several patches around The Greenhouses; 7 July 1994 and still there in 2000. In several spots in Cheapside Village.

Ascot: local and rare in the grounds of Heatherwood Hospital.

East Berks: on the slopes of Windsor Castle, quite naturalized. Frogmore. One plant from near Wellington College. On a bank of the Blackwater in a wild-looking locality. Swallowfield churchyard, Sonning, Wargrave. Commonest in the Thames and Blackwater valleys. 1% (1km²). Atlas 2000: all except [78], [87], [88]

West Berks: scattered records to the north of 85 and from Hamstead Marshall [46]. Beckett Park and Shrivenham [28], between Pusey and Hatford [39], Lockinge [48], Grove [49], Youlbury [40], railway near Abingdon [49], Boars Hill [4802], Oven Bottom [58], and formerly in a wood near Wallingford [68]. Atlas 2000: [28], [39], [47], [48], [49], [58], [59], [50], [67], [68]

Legousia hybrida (L.) Delarbre *Venus's-looking-glass*

○ th 5 ↓

Campanula hybrida L.

Specularia hybrida (L.) A. DC.

Cornfields on calcareous soil; absent from south-east Berkshire. Much decreased through the universal use of herbicides in arable crops. Occasional on set-aside land.

NVC: OV 15

East Berks: formerly an arable weed in the north of the area at Remenham, Windsor, Wargrave, Twyford, Waltham, Arborfield. Now virtually extinct and known from only one site at Crazies Hill and another at Hurley. <1% (1km²). Atlas 2000: [78], [88]

West Berks: occasional to the north of 75, absent or rare to the south of this. Kingstone Down and Wayland's Smithy [28], by the track from Great Coxwell to Collymore Farm [260939], Coppington Down [37], Britchcombe Farm, Letcombe Bowers Farm, Crog Hill and Whitehorse Hill [38], Stanford-in-the-Vale, Buckland, Hatford and Pusey [39], Chieveley, Chaddleworth, Lilley, Beedon Hill and Peasmore [47], East Ilsley and Willsley [48], Frilford, Cothill and Marcham [49], Wootton, Wytham and a sandy field on Boars Hill [40], Thatcham Marsh [56], Aston Upthorpe Downs, Aston Tirrold, Lollingdon Hill, Compton, Blewbury, Streatley, Moulsoford and Cholsey [58], Radley and Pumney Farm [59], South Hinksey [50], Sulham and Basildon [67]. Atlas 2000: all except [46], [66], [68], [69]

Wahlenbergia hederacea (L.) Rchb. *Ivy-leaved Bellflower*

chh 7 †

Cervicina hederacea Delile

Campanula hederacea L.

Shady, boggy places in acid woodland rides. Very local and rare. Possibly introduced.

West Berks: in Bagley wood on each side of the Abingdon road [5002]. First recorded here by Merrett in 1666 and mentioned by T. Lawson in a letter to John Ray dated 9 April 1688. Last recorded in 1956. There is a second record from Wootton Heath [50] in 1865, but this was never seen again.

Jasione montana L. *Sheep's-bit*

hs 5 ↓

Dry wood margins, heaths, banks and railway cuttings on acid soils. Rare and decreasing.
NVC: W 23

East Berks: railway cutting at Wellington College, Bearwood, Arborfield, Ambarrow, plentiful on the railway-side at Sandhurst (all pre-1897). Ambarrow Hill (1950), by the railway at Sandhurst Lodge (1961) and Queens Mere (1964), Warren Row (1966), Ascot (1951). Warren Row [8180]. <1% (1km²). Atlas 2000: [86], [88]

West Berks: extinct in the Northern Loop and known only from Cold Ash [56] and Beenham [66] in Bowen's time. There are nineteenth century records from Boars Hill [40], Tubney [49], Hermitage and Fence Wood [57]. Atlas 2000: no records

RUBIACEAE

Asperula arvensis L. *Blue Woodruff*

• th 6 †

A bird-seed and grain alien, sometimes confused with *A. orientalis* (see below).

East Berks: collected by Melville at Hurst Grove [7972] in 1897. Found in a garden in Tilehurst [76] in 1968.

West Berks: there are nineteenth century records from Wickham [37], Newbury [46], Cothill [49] and Didcot [59], mostly from the railway.

Galium x pomeranicum Retz. = **G. verum x G. mollugo**

West Berks: at Bagley Wood [50] in 1888 (**OXF**), on the railway bank at Compton [5279] in 1960 (**LAN**), Fair Mile [560833] in 1962 (det. C.J. Cadbury).

Galium pumilum Murray *Slender Bedstraw*

hp 6 ↓

Galium sylvestre Poll.

Galium apserum Schreb.

A local speciality of herb-rich chalk grassland, thriving at sites where the turf is grazed, mown or kept short and thin by exposure. Associates include *Cirsium acaule*, *Gymnadenia conopsea*, *Helianthemum nummularium*, *Hippocrepis comosa* and *Polygala calcarea*. Destruction of chalk grassland for arable agriculture and cessation of grazing on what little grassland remains has undoubtedly caused considerable losses. Told from *G. sternerii* (not a Berkshire plant) by the surface of the fruit which has minute, low-domed or rounded tubercles (not high-domed, sub-acute tubercles). Told from *G. saxatile* (an extremely common Berkshire plant) by the leaf margins. The prickles are all forward directed in *G. saxatile* but at least some of the prickles are backward directed in *G. pumilum*. The leaves on the flowering shoots are also different shapes: fatter (oblanceolate) in *G. saxatile* and more slender (linear to linear elliptic) in *G. pumilum*. The overall jizz is distinctive, too, because *G. pumilum* is an upright (not creeping) plant.

East Berks: very local on the chalk at Hurley pit (1965) (det. R.S.R. Fitter). Old Windsor (**HULL**) in 1879. Atlas 2000: no records

West Berks: very local near Sulham [67]. Found by Mr. Tufnail on "a grassy slope on which the prevailing vegetation consists of *Galium mollugo*, *Gentianella amarella*, *Asperula cynanchica*, *Campanula glomerata*, *Bromopsis erecta*, *Helictotrichon pubescens*, etc. A few larches have been planted in the vicinity, and there is a patch of *Euphorbia cyparissias* on the same slope, but it is not very near to the *Galium*, which I am disposed to think may be a native species here" (Druce 1897). Frilford Heath golf course (**OXF**) [49] in 1912, Sulham [67] again in 1954 (see above), in calcareous grassland on Wytham Hill [40] in 1961. There are no specimens of most of these. Atlas 2000: [38], [40]

Galium spurium L. *False Cleavers*

th 7 †

Galium vaillantii DC.

Galium spurium L. forma *vaillantii* (DC.) R.M. Moore

East Berks: Reading (1918)

West Berks: on the railway at Didcot [59] and on rubbish at Grandpont [50] in 1897 but only for one season, and at Cothill [49] in 1908 (no specimens). Not an established native arable weed with us.

Galium tricornutum Dandy *Corn Cleavers*

th 6 ↓

A *Red Data Book* species, once a widespread weed of autumn-cultivated arable fields in south-east England. Generally thought to be a poor competitor compared to *G. aparine*, it is usually confined to field margins and other places where the crop is thin. Its numbers are highly variable from year to year and it does not appear to have a large, long-lived seed bank. Told from *G. aparine* by the lack of any hooked bristles on the fruits of *G. tricornutum*.

East Berks: not seen by Druce. No recent records but collected once at Arborfield (RDG) in 1960.

West Berks: recently in Wytham Upper Seeds with other arable weeds like *Ranunculus parviflorus*, *Sherardia arvensis* and *Vicia tenuissima*. Older records (1960s) from Fair Mile (LAN) [5583] and Wayland's Smithy [284854]. There are nineteenth century records from Marcham [49] (OXF) and Wootton [58] (RNG). Atlas 2000: [28], [46], [40]

Galium parisiense L. *Wall Bedstraw*

th 6 ↑

A small annual plant of ancient walls and bare places, typically growing with *Arenaria serpyllifolia* subsp. *leptoclados*, *Catapodium rigidum*, *Erophila verna*, *Sagina apetala*, *Saxifraga tridactylites*, etc. Autumn germinated plants are likely to be killed by frost, and spring germinated plants are extremely sensitive to competition from more vigorous perennials, especially under nutrient enrichment. Told from other bedstraws by its slender stature, smooth fruits and leaf margins with forward directed prickles. Probably extinct as a native, but persists as a casual introduction, and appears to be undergoing something of a renaissance.

Silwood Park: a fine plant, growing on its own in dry bare soil at the base of the wall of the Centre for Population Biology between the brickwork and the edge of the lawn on 29 June 2000. Origin unknown. Opposite the *Cornus nuttallii* at the North Block end of the CPB building [9471 6865]. More than 30 plants in June 2001, the offspring of which germinated in September 2001; they survived the frosty winter of 2001-02, and the population was in good shape in June 2002, having spread around the corner of the building into cracks between the brick paving stones. By May 2004, the whole corner was dominated by a monoculture of *G. parisiense*, there having been no serious frosts.

East Berks: Silwood Park, new to v.c.22. <1% (1km²). Atlas 2000: [96]

West Berks: there is a pre-1970 record from [57] in the Scarce Plant Atlas, but I can not find any details of it. Found by Bill Helyar in June 2001 on a topsoil dump on Tadley Common [605626].

Cruciata laevipes Opiz *Crosswort*

hp 5 ↓

Galium cruciata (L.) Scop.

Cruciata chersonensis auct., non (Willd.) Ehrend.

Hedges, woods, thickets, roadsides and rough grasslands; locally abundant but absent from considerable areas, and avoiding acid soils. "A conspicuous feature in the vegetation of the lanes in the central part of the county" (Druce); you certainly would not write that nowadays, when it is local and uncommon. A victim of fertilizer pollution and other kinds of eutrophication. This species has an extremely odd distribution within Berkshire.

NVC: CG 3,4; MG 1; W 24

Silwood Park: recently imported; very local and rare. Locally abundant by the door of the bird-cage at the end of the CABI Polytunnel on North Gravel, amongst *Galium mollugo* on 8 May 2003. Still there, and spreading on 10 May 2004. It is not clear how the plant was introduced, but it is certainly not native here.

Ascot: no other records; the Silwood record for [96] in 2003 was the first for the district.

East Berks: Bisham Wood, Shinfield, Arborfield, Hurst, Loddon Bridge, Ashley Hill, Cookham. Occasional, but with a puzzling distribution pattern centred on Reading. Scattered, not recorded to the east of 90 or the south of 65. On the chalk, very local in longer grass just below the car park on the crest of Winter Hill. Great Copse, Dinton Pastures [783718]. A single isolated clump in long grass on a lane-side near Moor Copse [743665] in June 2003. <1% (1km²). Atlas 2000: [76], [77], [87], [88]

West Berks: commonest in the south-east [57], [66] and [67], but occasional in the western reaches of the Thames valley from Swinley Down, Fognam Down, Ashdown Park and Kingston Down [28], Coleshill, Badbury Hill, and Buscot [29], Buckland, Hinton Waldrist and Pusey [39] down to Cumnor and Wytham [40], Marcham and Tubney [49], with outlying stations in Hungerford, Inkpen and Riever Wood [36]. The main distribution is around Aldermaston and Chapel Row [56], Yattendon, Ashampstead, Aldworth and Bucklebury [57], Mortimer and Burghfield (LAN) [66], Basildon, Southcote, Bradfield, Tilehurst and Pangbourne [67]. Atlas 2000: all except [37], [46], [47], [59], [50], [68], [69]

CAPRIFOLIACEAE

Sambucus ebulus L. *Dwarf Elder* or *Danewort*

○ hp 7 ↓

Very local and rare in our area. Hedges, ditches, roadsides and waste places, in small patches. Local and mostly on calcareous soils.

East Berks: not seen by Druce. Park Place in 1965 but not there now. Atlas 2000: no records

West Berks: still in a roadside hedgerow at Woolstone [295874], roadside ditches near Coleshill [2392] (but commoner on the Wiltshire side of the R. Cole), Hermitage [57] and Kennington [527014] in 2004. Older, pre-1920 records from Kintbury [36], in abundance (as *Danewort*), at Seacourt below Wytham Castle [40] “being testimonies embraced by most, of the effusion of men’s blood (and particularly Dane’s blood) wheresoever great quantities of it grows” (Anthony Wood, 1666). The Danes are known to have besieged Wytham Castle “standing upon the hill not above halfe a mile from Seckworth” (Hearne, 1777). Aldermaston [56], Cholsey Church [58]. Atlas 2000: [28], [29], [36], [38], [57], [58], [50], [66]

Lonicera xylosteum L. *Fly Honeysuckle* ● n 5 †

Hedges and shrubberies; very rare. Planted in many situations

East Berks: it had a semi-wild appearance in a hedge near Ambarrow in 1892 (**OXF**). Not seen by Bowen. Atlas 2000: no records

West Berks: Radley [59] before 1897. Atlas 2000: no records

Lonicera caprifolium L. *Perfoliate Honeysuckle* ● m 5 ↓

Woods and hedges, very rare as an introduction in plantations, and as a long-lived survivor in garden hedges.

East Berks: Wargrave (1963).

West Berks: Tilehurst [67] in 1897, Pusey [39] in 1918, Bagley Wood [50] in 1945 (**OXF**), Basildon [67] in 1963, Lockinge [4387] in 1964, Sulham [67] in 1967. Atlas 2000: [50], [67]

VALERIANACEAE

The species of the genus *Valerianella* are very hard to tell apart, and you really must have ripe fruits if you are to have any hope of success. You need to determine whether the fruit is round (*V. locusta*), cylindrical (*V. carinata*), smooth onion-shaped (*V. rimosa*), or ridged onion-shaped (*V. dentata*). More details are given under each species.

Valerianella locusta (L.) Laterr. *Common Cornsalad* th 4
Valeriana locusta L.
Valerianella olitoria Pollich

This is our common species, found on dry waste ground, sandy arable land, railway cuttings, dry hedge-banks, walls and cornfields; locally frequent in the drier parts of the county but absent from the acid soils in south-east Berkshire. Calyx in fruit absent or vestigial, fruit two times as thick as wide, with a shallow groove on the abaxial face.
 NVC: OV 3,27,42

Silwood Park: frequent on the cinder pot stand at The Greenhouses, in the Old Orchard, and in the fallow at Ashurst Four Acre Field. Not a common arable weed, more a plant of open waste land. It was abundant in May 2003 on the pot stand, benefiting from competitor release, following herbicide treatment of the perennials in summer 2002.

East Berks: scattered throughout. Frequent on Windsor Racecourse and at Queen’s Eyot. 4% (1km²). Atlas 2000: all squares

West Berks: common in the Thames valley, scattered in the Kennet valley but absent from the interior. Atlas 2000: all squares

Valerianella carinata Loisel. *Keeled-fruited Cornsalad* ○ th 4

Gardens and disturbed ground on dry soils, gravel paths and walls; local and sporadic. Calyx in fruit absent or vestigial, fruit with a deep groove on the abaxial face.

East Berks: not seen by Druce. Knowl Hill in 1963, in a nursery at Hare Hatch in 1962 (**OXF**). <1% (1km²). Atlas 2000: [77], [87]

West Berks: Faringdon pits and in a popular plantation at Lyde Copse [29], Stock Cross Common [46], Didcot [49], Abingdon [4896] and [4997], Boars Hill [40], Sutton Courtenay Manor [501942], South Hinksey [50], between Bradfield and Tidmarsh [67]. Atlas 2000: [29], [38], [40], [59], [50]

Valerianella rimosa Bastard *Broad-fruited Cornsalad* ○ th 7 ↓

Arable fields on the chalk; very local. Calyx in fruit distinct, main tooth not, or scarcely, toothed.

East Berks: a single record from a ditch near Lord Downshire’s gate-entrance to Easthampstead Park (1897). Not seen by Bowen. Atlas 2000: no records

West Berks: Aston Tirrold [5485], Kingstanding Hill [5783], on bare chalk in arable land at Aston Upthorpe Downs [5483]. Nineteenth century records from Cumnor [40], Compton [58], Basildon [67]. Atlas 2000: no records

Valerianella dentata (L.) Pollich *Narrow-fruited Cornsalad* ○ th 6
Valeriana locusta L. var. *dentata* L.

Corners of dry arable fields. A cornfield weed of lighter calcareous arable land, doing best in spring-sown cereals, once frequent, now occasional on the drier parts of the chalk and rare elsewhere. It is susceptible to both herbicides and fertilizers. Known from other cornsalads by the calyx, which is distinct and persistent in fruit, with fewer than 6 teeth, the main tooth with 2 or more distinct teeth and fruits with 2 abaxial ridges.

NVC: OV 15,16

Ascot: no records.

East Berks: Windsor, Wargrave, Remenham, near Lord Downshire's gate-entrance to Easthampstead Park, Bowsey Hill, Earley, Hurst, Maidenhead, Bisham, Cookham, Sonning. Woodley, Park Place, Hurley, Jealott's Hill. 2% (1km²). Atlas 2000: [77], [78], [87], [88]

West Berks: centred on the eastern chalk at [58], absent or rare elsewhere. Newbury [46], East Ilsley [48], Frilford Heath [49], Appleton Lower Common, Wootton, between Hen Wood and North Hinksey (OXF) and Boars Hill [40], Sugworth [50], Lowbury Hill, Aston Tirrold, Kingstanding Hill and Fair Mile [58], Sulham Hill (RNG) and Pangbourne [67]. Atlas 2000: [36], [46], [48], [49], [40], [58], [50], [67]

Valeriana dioica L. *Marsh Valerian* hs 5 ↓

Marshes, bogs and wet meadows. Locally common and widely distributed. Alder woods, marshes, fens and damp pastures, rarely in sheltered chalk grassland (e.g. at Cookham Down). Occasional, but rare or absent from northern clays and acid soils in south-east Berkshire.

NVC: M 13,22,24; MG 13; S 25; W 5

East Berks: Aston, Warren Row, Sandford Mill, Hurst, Sonning meadows, Shinfield, Crazy Hill, Coleman's Moor, Long Moor, Hurley, Wokingham, Easthampstead, Sandhurst. Extinct at most of the sites listed by Druce. Now very rare and entirely confined to the western reaches of the Thames valley around Hurley, except for an outlying station in Shepherd Meadow at Camberley. <1% (1km²). Atlas 2000: [77], [86]

West Berks: occasional in the Northern Loop, scattered in the Kennet valley, but absent from most of the interior. Shrivenham [29], Watchfield [239898], Coleshill, Watchfield, Badbury and Longcot [29], Kennet meadows near Kintbury [36], Shefford [37], Uffington, Challow and Wantage [38], Buckland Warren [335959] and Carswell [39], Enborne, Bagnor, Newbury and Greenham Common [46], Snelsmore Common and Boxford [47], Steventon, Frilford, Marcham and Cothill [49], Frilford Heath golf course [442986], Wootton, Wytham and Boars Hill [40], Beenham, Thatcham, Midgham and Aldermaston (RDG) [56], Stanford Dingley [57], Blewbury, Cholsey and Moulsoford [58], Appleford, Didcot and Radley [59], Kennington [50], Silchester [66], Bradfield, Pangbourne (RDG), Sulham (LAN) and Theale [67]. Atlas 2000: all except [48], [68], [69]

DIPSACACEAE

Dipsacus pilosus L. *Small Teasel* hs 8 ↓

Damp woods, rides, clearings and hedgerows, shady banks and sides of streams; local and rather rare.

East Berks: Sonning Lane, White Waltham Church, Windsor (1833), Ruscombe. Ruscombe girder bridge [804764] (1963), Sonning (1800, 1909, 1963 and 1987) by the banks of the Thames [752753] (RDG and LAN), Cookham [8985] (1954). Recently found on the northern bank of the R. Loddon [719650] in a tall-herb community with *D. fullonum* and *Impatiens glandulifera* on 14 August 2001. <1% (1km²). Atlas 2000: [77]

West Berks: Coleshill and Farringdon [29], Shefford, Beedon Wood and Weston [37], Stanmore [47], Marcham [49], Wytham and Tubney Wood [40], Inwood Copse [559633], Unhill Wood [58] (OXF), Silchester [6262], Pingewood [66], Burghfield Bridge [6870] in 1982. Atlas 2000: [29], [49], [40], [66], [67]

Dipsacus laciniatus L. *Cut-leaved Teasel* ● hs 7

East Berks: not in Druce or Bowen. On waste ground in towns; rare but possibly increasing. Windsor (1996), Maidenhead (1999).

ASTERACEAE

Carthamus tinctorius L. *Safflower* ● th 6

A rather uncommon garden annual; a thistle-like plant up to 1m tall with bright orange flowers (the English name 'False Saffron' refers to the former use of the petals as a source of orange dye).

East Berks: Reading in 1918 and again on Smallmead tip in 1971. Very common in late summer 1999 during the construction work of the new road network adjacent to the M4/A33 interchange [7169], when the old Smallmead tip site was churned up. The site was bulldozed and seeded to grass during the tidying up and subsequent landscaping operations; not seen in 2001. <1% (1km²).

West Berks: at Abingdon Racecourse [49] in 1913-17 (**OXF**). Botley 1916-17, Kennington [50] in c.1920 (**OXF**).

Arctium L. Burdocks

Berkshire records of Burdocks suffer, as elsewhere, from changes of fashion in botanical nomenclature and from a lack of attention to detail. The two main groups of species are easy to tell apart: *A. lappa* has a flat topped inflorescence which results from the fact that the burs inserted lowest on the stem have the longest peduncles (a corymbose inflorescence), whereas *A. minus* and *A. nemorosum* have more or less sessile burs in a spike-like raceme. Separation of *A. minus* and *A. nemorosum* takes more experience. You need to check with a lens whether the corolla is hairy or glabrous, and to measure the width of the middle involucre bracts (phyllaries) to the nearest 0.1mm (see below). In the field in winter, after the burs are fully mature, *A. minus* can be told from *A. nemorosum* by keeping an old railway ticket in your pocket. The black magnetic strip on the back of the ticket is the difference in diameter across the tips of the burs. *A. minus* is the width of the white strip on one side, while *A. nemorosum* is the width of the white strip plus the magnetic strip. To confirm identification you need to measure the width of the middle interior bracts, preferably under a microscope (less than, or more than, 1.7mm respectively). The young stems often bear dense colonies of the bronzy-black aphid *Uroleucon*. & the leaves bear serpentine mines of *Phytomyza lappae*.

Arctium lappa L. Greater Burdock

o h 7

Roadsides, copses, hedges, canal banks, field corners and waste ground on moist, nutrient rich soils. Locally dominant in urban areas, by farms and near rivers or canals. Commonest on the clay, less common in open country, and in small quantity and rare or absent on nutrient-poor soils on the chalk and in south-east Berkshire. The petiole of basal leaves is solid at the base, and the lowest burs are on long peduncles (> 2.5cm, not sessile). The leaves are mined by *Ophiomyia lappivora*.

Silwood Park: very local, but dominant where it grows at the boggy northern end of the Walled Garden (since 1984). The origin of the plants is unknown, but seeds could have been brought in unintentionally with plant material imported from Kent in 1979. There were 6 plants at the western end of the bonfire site at Ashurst, and 2 on the shady track behind Southwood Halls on 14 July 2003.

Ascot: uncommon, in the verge of Cranbourne Roundabout [929730] on 30 August 2004.

East Berks: Shinfield, Sonning, by the R. Thames at Hurley, Wellington, Long Moor, Sandhurst, Park Place, White Waltham, Holyport, Bray, Windsor Park, Swinley. Common in the west but rare or absent to the east of 90. Billingbear golf course. Locally frequent in ditch sides at Maidenhead sewage works [8980], by the R. Loddon on Whistely Green [7873], by the confluence of the Rivers Kennet and Thames in Reading [730740], in a ditch at Braywood Orchard [874750], roadside ditches between Fifield and Bray [9177], and at Old Windsor Lock [9974] in 2001. 11% (1km²). Atlas 2000: all squares

West Berks: occasional in the Thames valley as at Appleton, scattered in the Kennet valley getting progressively commoner as one approaches Reading, but rare in the interior (north of 70 and south of 95). On the edge of set-aside fields near the Victoria Tavern [237876] by the Great Western Railway south of Shrivensham in September 2004. By the old canal at Wantage [48] and in Cholsey Marsh [68]. On the ruins of the Prince of Wales pub at Challow Station [3590]. Conspicuous in Dry Sandford Pit [4699]. By the ancient trackway up Cholsey Downs [5685]. Common in Reading's Lake District [66] and [67] in 2002. Atlas 2000: all except [69]

[Arctium x nothum (Ruhmer) J. Weiss = A. lappa x A. minus]

Lappa x notha Ruhmer

Arctium x debrayi Senay

No Berkshire records but worth looking for. It is likely to be found where the parents grow together (e.g. by canals in towns). The hybrids combine the corymbose inflorescence of *A. lappa* with the hollow petiole of *A. minus*. The corolla is roughly equal to the involucre bracts and achene fertility is low.

Arctium minus (Hill) Bernh. Lesser Burdock

h 7

Lappa minor Hill

Arctium vulgare auct., non (Hill) Druce

Arctium pubens Bab.

Arctium minus (Hill) Bernh. subsp. pubens (Bab.) P. Fourn.

Wayside, woods, hedges, woodland rides, roadsides and waste ground; common and generally distributed. Most frequent on the chalk. The petiole of basal leaves is hollow near the base, and the middle phyllaries are narrow (< 1.7mm). Note, however, that a problem can arise if the phyllaries are somewhat wider: if they are 1.7 to 1.8mm broad, then the corolla equalling or exceeding the phyllaries, or the corolla pubescent, or both, is *A. minus* not *A. nemorosum*. Stace's treatment lumps *A. minus* and *A. pubens*

together. Previously, *A. pubens* was distinguished by having bigger heads (2-3cm in diameter vs. 1.5-2.2cm) that were open at the top in fruit, and borne on peduncles up to 15cm in length (there are no Berkshire records of *A. pubens*).
 NVC: CG 3; OV 10,13,24,25,32; W8,12,21

Silwood Park: uncommon, typically as isolated individuals. The uppermost burs (22mm diameter across the tips of the hooks) are on peduncles of 6mm. The middle bracts are only 1.3mm wide. Easy to tell from Silwood *A. nemorosum* on bur diameter and colour (smaller and paler). Buckhurst Road Entrance, in the open woodland below the road to Southwood Halls in 1998-9. By the Nuclear Reactor, on the roadside down to Silwood Bottom (1979-2004). In the new coppice with standards by Mann's Copse, Cheapside, Ashurst, Four Acre Field, Ashurst Orchard, The Rookery, Silwood Lodge, North Heronsbrook, opposite Cheapside Pumping Station, Silwood Road, The Heath, East Lodge.

Ascot: Blane's Allotment, Swinley Brick Pits, heathy spots at Englemere, Fernbank Road, Coronation Road, Heatherwood Hospital, South Ascot, Ascot Heath, Kings Beeches, Charters Road, Sunningdale, Blacknest Park, South Coworth, Frostfarm Plantation, Brookside, Winkfield Lodge, Sunninghill Park, New Mile Road, Home Farm, South Forest, Hiltons Covert, Great Meadow Pond, Spring Hill.

East Berks: common on the chalk slope below Windsor Castle, on the edge of Cock Marsh, Quarry Wood at Bisham, by the R. Thames at Hurley (with *A. lappa*), and in the chalk pit at Hurley. On sunny waste ground between the railway and Tesco's Superstore at Kings Meadow in Reading [719738] on 11 October 2003. 40% (1km²). Atlas 2000: all squares

West Berks: frequent throughout, and much commoner than *A. nemorosum*. Abundant on the burial mounds at Seven Barrows [3282] and in the eutrophic woodland at Grove Copse [2392]. On the Berkshire/Hampshire border at Newtown Pond [477640] in 2004. Growing with *A. lappa* near Bourton [2386] in 2004. Atlas 2000: all squares

Arctium nemorosum Lej. *Wood Burdock*

h 7

Arctium minus (Hill) Bernh. subsp. *nemorosum* (Lej.) Syme

Arctium vulgare auct., non (Hill) Druce

Roadsides, hedges, thickets, etc.; local. The petiole of basal leaves is hollow near the base, the middle phyllaries are broad (1.7-2.5mm), the phyllaries exceed the corolla by 1.2-6mm, and the corolla is glabrous. Mature burs are sessile and broad (30-40mm). Leaves have blotch mines of *Pegomya genupuncta* and serpentine mines of *Phytomyza lappae*.

Silwood Park: uncommon, always as isolated individuals. Silwood Farm, on the north side of the track to the Kissing Gate, on the edge of the woodland, from 1980-2004, seldom more than one plant but seldom absent. Common in shade by the fence on the public footpath to Cheapside. Mass seedling recruitment in March 1984 in grassy verge next to the Engineering Store on South Gravel. Site destroyed during construction of the Science Park. The Engineering Store was dismantled and moved to a site below the Reactor Centre Wind Tunnel, but the plant was not there until October 1999 when a single individual was recorded from the Reactor Bank, on the edge of the birch trees. The Refectory, a dozen large plants in full flower on 13 August 1990 (a mass flowering by Silwood standards) around the edge of the old concrete base where the caravan used to stand behind Hut 4 adjacent next to the ramp at the rear of the Machinery Centre. On waste ground near the Walled Garden. Oak Mead, one plant in nettles by the Guinness's Thicket fence and another by the Biodepth shed at the top of the field by the Church Lane footpath in April 2000. Satellite Pad, Ashurst Warren, Playing Field, Ashurst Warren, South Lodge, behind the Japanese Garden, Cannon Crossroads. There were 3 large plants by the passing place on Ashurst Road on 28 August 2002. One plant in the lawn by the pond in the Japanese Garden in July 2003. The uppermost burs (32mm diameter across the tips of the hooks) are sessile. The middle bracts are 1.9mm wide. Easy to tell from Silwood *A. minus* on bur diameter and colour (larger and darker).

Ascot: much less frequent than *A. minus*. Englemere, Johnson's Pond, Breakheart Hill, Locks Ride, North Ascot, Ascot Place, Windsor Great Park.

East Berks: Finchampstead, Winkfield but localities very incomplete. Sandhurst, near the Thames at Bray, White Waltham, Littlewick Green, Finchampstead. 27% (1km²). Atlas 2000: all squares

West Berks: occasional in the Thames valley but rare or absent in the Kennet valley and seldom reported from the south of the chalk ridge (i.e. south of 80). By the ancient trackway up Cholsey Downs [5685] with *A. lappa*. Atlas 2000: all except [47]

Carduus tenuiflorus Curtis *Slender Thistle*

• h 6

Carduus pycnocephalus L. var. *tenuiflorus* (Curtis) Ball

Waysides and dry banks in north Berkshire: rare and sporadic. Decreasing or formerly mistaken for *C. crispus*. The capitula are small (< 14mm) and roughly cylindrical (not round or bell shaped), and the corolla lobes are all the same size (rather than with one lobe more deeply delimited than the others).

East Berks: Earley [7472] (1982) and the motorway bridge over the R. Loddon [766713] in 1984. <1% (1km²). Atlas 2000: [77]

West Berks: very rare at Dry Sandford and Cothill in 1893 but not in 1896. Motorway bridge at Shippon (OXF) [4798] in 1977, Abingdon, Cothill and Marcham [49], Wootton [40] (OXF) in 1882, Radley and Didcot [59] (OXF) in 1927. At Larkmead, Abingdon [4896] in 1988 and Thrupp gravel pit [59] in 1990. Atlas 2000: [49], [59], [50]

Carduus x stangii H. Buek ex Nyman = **C. crispus x C. nutans**

Carduus x dubius auct., ? an Balbis

Carduus x polyacanthus Schleicher, non Lam.

Carduus x orthocephalus auct., non Wallr. nec Curtis

Berkshire botanists have been enthusiastic about recording this hybrid: it is partially fertile and found with the parents. It is intermediate in the attributes of the capitulum (about 25-30mm across the top of the bracts (excluding the flowers) and bracts neither lanceolate nor linear subulate.

East Berks: Reading in 1906 (**OXF**), Twyford (1897).

West Berks: Ashdown Park [28], Hungerford in 1897 and Combe Gibbet in 1977 [36], Letcombe [38], Buckland Warren (RNG) in 1977 and Cherbury Camp (**OXF**) in 1913 [39], Greenham Common [46], West Ilsley [48], Milton [488936] and [488984] in 1980, Newbridge and Cumnor [40] (**BM, OXF**).

Cirsium eriophorum (L.) Scop. *Woolly Thistle*

h 7 ↓

Cnicus eriophorius Roth

Carduus eriophorus L.

Cirsium eriophorum (L.) Scop. subsp. britannicum Petrak

An attractive thistle of dry pastures and roadsides on coralline oolite or chalk, usually in small quantity and sporadic. The leaves are highly distinctive with their regular, comb-like lobes. Declined through herbicide spraying of pasture land.

NVC: CG 2,3,5

East Berks: not seen by Druce or Bowen on the northern chalk, and probably just a casual in east Berkshire; Rapley Farm [8965] in 1979, waste ground in Whiteknights Park [7271] in 1981. Atlas 2000: no records

West Berks: centred on the coralline oolite of the Northern Loop, locally frequent on the chalk downs, but absent, rare or extinct elsewhere. Odstone Coombes [28], Walbury Camp [3762], Letcombe, Knighton Bushes, Wantage, Crog Hill and Uffington [38], Duxford, Buckland and Pusey [39], Ashridge [47], Didcot, Abingdon, Tubney, Cothill, Hitchcopse pit [453997], Dry Sandford pit [465996], Shippon and Frilford [49], Wootton, Boars Hill, Cumnor, Harcourt Hill, Bessels Leigh and Upper Seeds at Wytham [40], Beenham [56], in the lime-enriched short heathland along the length of the former runway on Greenham Common [56] in 1999, by the ancient trackway up Cholsey Downs [5685], old railway at Hagbourne, Little Moulsoford and Streatley [58], Wittenham [59], Ferry Hinksey [50]. Atlas 2000: all except [46], [47], [48], [50], [66], [68], [69]

Cirsium dissectum (L.) Hill *Meadow Thistle*

hel 6 ↓

Carduus dissectus L.

Cnicus pratensis Willd.

A local speciality of fens, bogs, peaty commons, moist meadows and wet heaths where there is some horizontal water movement, often growing with *Molinia* and *Carex panicea*. The lower stem leaves are unlobed, and chalky white-felted on the underside. A serious decreaser as a result of drainage of bogs and wet heaths. Absent from the chalk and northern clays.

NVC: M 13,16,21,22,24

Ascot: thought to be extinct in Sunningwell Bog and Ascot. Rediscovered on 28 June 2001 on the edge of Sole's Pond in the woodland just east of Ascot Station, a single plant on the bank opposite the island.

East Berks: Earley Heath, Bulmarsh, Bagshot Common, boggy ground in Windsor Great Park, near Caesar's Camp, Wellington College, Ambarrow, Long Moor, Sandhurst, Crowthorne, Wokingham, near Bracknell, Riseley, Finchampstead, Blackwater. Wellington College (1916), Queens Mere, Owlsmoor. Extinct at most of its former stations, but still at Edgebarrow, Wellington College Bog, Shepherd Meadow [8460], Wishmoor Cross [8763], Crowthorne [8463], water meadows in v.c.22 opposite Blackwater Station [8559], near Mill Pond [8865], and on Whitmoor bog [8968]. 1% (1km²). Atlas 2000: [86]

West Berks: Fernham meadows and Grafton Lock meadows [29], Alfred's Hill [2990], Inkpen common and Woodhay [36], Newhouse Covert [39], Enborne and Greenham Common [46], Snelsmore Common [47], Frilford, Tubney, Tubworth Barn meadow, Barrow Farm fen and Cothill Fen [49], Wytham and Hen Wood [40], wet meadow at Aldermaston [5970 6269] and Cold Ash Common [56], Oare Common and Bucklebury [57], Hagbourne Marsh [58], Iffley meadows, Bagley Wood and Kennington [50], Ufton Nervet, Burghfield and Mortimer [66]. Atlas 2000: [29], [36], [39], [46], [47], [49], [40], [56], [57], [59], [50], [66]

Cirsium x forsteri (Sm.) Loudon = **C. dissectum x C. palustre**

Cnicus x forsteri Smith

This is the commonest hybrid thistle and is found wherever *C. dissectum* grows. It has discontinuous spiny-winged, cottony pubescent stems and intermediate capitula and leaves.

East Berks: Wellington College [86] from 1963-65, Long Moor [76] in 1897.

West Berks: Cothill [49] in 1918.

Silybum marianum (L.) Gaertn. *Milk Thistle*
Carduus marianus L.,
Mariana mariana Hill

○ h 6 ↓

Roadsides, dry waste ground and tips; rare and sporadic in very small quantity.

East Berks: first record Wargrave (1897). Christchurch Road, Reading (1957), Maidenhead (1962), on a bonfire site at Whiteknights Park (1980-85). Recently only at Dinton Pastures. <1% (1km²). Atlas 2000: [77]

West Berks: pre-1900 records from Longworth [39], Newbury [46], Bessels Leigh [40], Upton [58] and Didcot [59] in 1945, Abingdon [49] in 1949, Kingston Bagpuize [49] in 1965, Tilehurst [67] in 1967, between Bucklebury and Hermitage [543709] in 1984. Recently at Hackpen Hill in a disused pit, where garden waste had been fly-tipped [351853]. Atlas 2000: no records

Galactites tomentosa *Thistle*

● h 6

An elegant Mediterranean thistle with narrow, milk-veined leaves and delicate purple flowers; uncommon in gardens, and very rare as an escape.

East Berks: a single plant on waste ground north of Oxford Road in Reading [7073] in July 2002.

West Berks: very local and rare on waste ground in Faringdon [2895] in July 2002

Serratula tinctoria L. *Saw-wort*

h 7 ↓

Woods, thickets, heathy places, hedgerows, coarse grassland, drier parts of fens, on a wide range of soils. Local and decreasing. The curious distribution of *Serratula* is beautifully illustrated by the juxtaposition of two records in Bowen's old card index of the flora: Whitehorse Hill [2986] and Whitmoor Bog [8968]. Never were two habitats more different than this: one a dry chalk grassland and the other a wet acid bog. The East and West Berkshire distributions also tell contrasting stories: In East Berkshire it is found on the acid sands and is absent from the chalk, while in West Berkshire it is commonest on the chalk and rare on the acid sands. Perhaps two different genotypes are involved?

NVC: CG 2,5; M 13,16,24; MG 4

Ascot: abundant by the railway between Ascot and Bracknell in Druce's time (as at Englemere, where it still occurs), in the central rough of the golf course on Ascot Racecourse [9169] in 2002, Ascot Heath [9269] in 1972, Whitmoor Bog (1977) at Martins Heron [8968].

East Berks: Wellington College, Easthampstead, Earley Heath, Sandhurst, Bracknell, Bagshot, Riseley, Finchampstead Leas, Crowthorne, Wokingham, Stanlake Park, Bracknell, Nuptown Farm. Rare to the east of a line from Maidenhead to Arborfield, absent or extinct to the north and west of this. 1% (1km²). Atlas 2000: [76], [86], [87], [96], [97]

West Berks: uncommon on the chalk [28], [38], [48] and [58] and on the oolitic limestone of the Northern Loop [40], but rare in the south, with an outlying population on Inkpen Common [36]. Weathercock Hill [296825], Alfred's Hill [2990], Ashdown Park [28], Fernham meadows and Longcot [29], very fine by the canal at Uffington, Letcombe Castle, Seven Barrows and Hackpen Hill [38], Buckland [39], Hamstead Marshall [46], Langley Wood [47], Grimm's Ditch, Chilton and Farnborough Downs [48], Cothill Fen and Grove [49], Wootton, Lashford Lane, Boars Hill, Wytham, in Cumnor meadow in great abundance, Bushy Leaze Copse and Swinford [40], Aldermaston [56], AWRE Aldermaston [596628], Grims Ditch, Hermitage, Oare and Compton [57], by the railway at Didcot [5190], Aston Upthorpe Downs, Compton Downs and Lowbury Hill [5583], Radley [59], Bagley Wood [50], Mortimer, Burghfield, Ufton Nervet and Silchester [66]. Atlas 2000: all except [46], [47], [56], [67], [68], [69]

Centaurea cyanus L. *Cornflower*

○ th 6 ↓ & ● th 6 ↑

Cornfields, especially on light sandy soils. Formerly a common weed of arable land on sandy rather acid soils growing with *Chrysanthemum segetum*. Now usually garden escapes or introduced with wildflower mixtures. Susceptible to herbicides and uncompetitive with perennial crops and grass leys. Godwin (1975) thought that the natural habitat was scree slopes and alluvial deposits in late glacial tundra. Very common in cottage gardens, as a summer-flowering pot plant and in bedding schemes, self-seeding all over the place.

Silwood Park: extraordinarily successful in the first year of the Nash's Field experiment. Seeds sown inside the rabbit fences in October 1991 formed a virtual monoculture, 1.2m tall in June 1992, studded red with poppies. None were found on the grazed plots. Numbers declined dramatically in the second year as herbaceous perennials like *Tanacetum vulgare* began to bulk up. Seen again 15 June 1996 in several of the plots following the great drought of 1995. Not seen since. Cornflower never spread to the adjacent plots that had been sown originally with grasses (*Alopecurus*, *Arrhenatherum*, *Anthoxanthum* and *Festuca rubra*). On the student allotments in June 2003. A garden escape on pavements in Cheapside Village in 1999.

East Berks: Cookham Down, common on gravelly soil about Park Place, Windsor, Sonning, Hurst, Arborfield, Bray, Twyford, Wargrave, Loddon Bridge, Farley Hill, Earley, Wokingham, Barkham, Bracknell, Old Windsor, Binfield, Finchampstead, Crowthorne. Dry arable fields, once frequent but now rare. Occasional on tips. Smallmead tip, Holyport, Cookham. Widespread as a garden escape, and therefore impossible to define as native in any of its current sites. Bowen considered the plant to be extinct as an arable weed at all but one or two of its former sites in East Berkshire (see Druce's list, above). A garden escape in Holyport and Altmore in 2002. 5% (1km²). Atlas 2000: all squares.

West Berks: as a native weed of arable agriculture, it is rare in the Thames valley, extinct or rare in the Kennet valley, absent from the interior. A garden escape, however, it is common in villages throughout, and appears as a seed-bank casual from dormant seed in tipped soil. There was a roadside display of rare arable weeds, presumably planted, at Upper Lambourn [3180] in July 2003. Used as a floral display in the centre of Newbury in May 2004, where it was planted over the A4 roundabout. Atlas 2000: [29], [48], [49], [56], [58], [50], [66], [67]

Centaurea calcitrapa L. *Red Star-thistle* ● h 7 †

East Berks: on the railway at Reading [7070] in 1911 (**OXF**).

Centaurea solstitialis L. *Yellow Star-thistle* ● th 7 †

Leucantha solstitialis (L.) Á. Löve and D. Löve

Cornfields and waste ground, sporadic and rare.

East Berks: by the river near the Albert Bridge, Windsor (1897). Fields sown with lucerne and other crops; rare and casual. Reading (1956), Remenham (1956). Lucerne fields at Basingstoke Road, Reading [7168], Whitley (**LAN**) [7168] in 1956, Remenham in 1956 and Strand Castle in 1959.

West Berks: Newbury [46], West Hagbourne [58], Basildon [67] and Radley [59] in 1897 (**OXF**), Boars Hill [40] in 1910 (**OXF**), Cherbury [39] pre-1918, in lucerne at Pingewood (**RDG**) [69] in 1924

Centaurea x moncktonii C.E. Britton *Hybrid Knapweed* = **C. jacea** x **C. nigra**

Centaurea x jacea auct., non L.

Centaurea x surrejana C. Britton

Centaurea x drucei C. Britton

A very interesting hybrid that persists long after one of its parents (*C. jacea*) has gone extinct (it was formerly an alien of grassy places). According to Stace (1997) the Berkshire plants approach *C. jacea* very closely. Differs from *C. nigra* in its involucre bracts (phyllaries) which are pale brown and irregularly jagged at the apex, rather like the palms and fingers of several waving hands (instead of the dark brown or black, regular comb-like teeth of *C. nigra*; see Figs 8, 9, and 10 on p 682 of Stace 1977).

East Berks: Wellington College (1913-20) (**RNG**).

West Berks: Thatcham [56] and Fence Wood [57] in 1965. No specimens. On an old railway, 400m north-east of Upton Station [5187] from 1978-80 (**OXF**). In the same location [513873] in September 1994 and July 2001.

Arnoseris minima (L.) Schweigg. & Korte *Lamb's Succory* th 6 †
Hyoseris minima L.

East Berks: on arable land at Crowthorne (now there's a laugh!) in 1891 (**OXF**), and in a sandy rhubarb field west of Easthampstead Park (**OXF**) in 1965. Worth searching for between Newlands and Sutton Court Farm in the vicinity of [838665] where there is still some open country.

West Berks: no records

[Lapsana communis subsp. **intermedia** (M. Bieb.) Hayek] ● h 6
Lapsana intermedia M. Bieb.

Told by its much greater stature and larger flower-heads (2.5-3cm rather than 1.5-2cm diameter). The leaves are much less strongly toothed. Well worth looking for, especially in rough grass on chalk or limestone.

Hypochaeris glabra L. *Smooth Cat's-ear* th 6 ↓

A local speciality of open sunny spots on sandy and gravelly heaths. Very local and rare. The marginal achenes are not beaked, the capitula are small (1.0-1.5cm across rather than 2-4cm), and the ligules are dumpy (only 2 times as long as wide, not 4 times as in *H. radicata*).

Ascot: extinct. Formerly at Englemere, by the railway between Bracknell and Ascot.

East Berks: extinct. No post-1920 records; last recorded from the Berkshire side of Virginia Water in 1918. Wellington College, Ambarrow, Whitmoor Bog, Bracknell, Virginia Water. The Atlas shows post-1930 records from [76], [96] and [97]. The [76] record is from North Hampshire (v.c.12) just south of the Berkshire border from a cornfield by the ford at Riseley in 1957 (Brewis, Bowman and Rose, 1996). The two eastern records are from adjacent tetrads on the Surrey border [9668] and [9670] and may in fact be just a single site on the eastern side of Virginia Water. Well worth searching for, because it is easy to overlook it as a small *H. radicata*. Atlas 2000: no records

West Berks: one of our native rarities, at Buckland [39], sandy waste ground at Frilford pit [4497], sandy arable land at Cothill [4699], in short turf on sandy ground on the hill top at Cumnor Hurst [4704]. Atlas 2000: [39], [49], [40]

Leontodon hispidus x saxatilis

Less than 1% fertile and intermediate in habit and pubescence. It has the pappus type of *L. saxatilis*.

West Berks: in a hilltop pit at Wytham [40] in 1962 (**OXF**) (det. R.A. Finch).

Tragopogon pratensis subsp. **pratensis** *Goat's-beard* ● h 6

A very rare alien, told from the common subspecies by its shorter involucre bracts (they are the same length or shorter than the ligules).

East Berks: in lane-side grass by the ornamental meadow on Long Lane at [883763] on 30 May 2002. <1% (1km²).

Tragopogon porrifolius L. *Salsify* ● h 6

A rare alien, casual on waste ground and rubbish tips. The flowers are deep purple and the pappus hairs are a distinctive dirty brown (not white).

Silwood Park: in the shady shrub bed at the Cannon end of the TTC building, origin unknown. One fine plant about 1.5m tall in full flower on 13 May 1990. Not seen again.

East Berks: on the side of the railway line near Blackwater in 1874. Binfield (1938), Shinfield (**RNG**) in 1950, Reading (**RDG**) in 1921, St Patrick's hilltop in Reading (**RNG**) in 1953. Recently at Bulmershe Court and Woodley. A single plant on waste ground near The Squirrels [9373] in July 2002. <1% (1km²). Atlas 2000: [76], [77], [86], [87], [96], [97]

West Berks: Cockney Hill Tilehurst [67] in 1960. Abingdon Common [472962] in 2001. Atlas 2000: [28], [49], [67]

Cicerbita macrophylla (Willd.) Wallr. *Common Blue-sow-thistle* ● h 7

Sonchus macrophyllus Willd.

Mulgedium macrophyllum (Willd.) DC.

Mulgedium uralense Rouy

Roadsides and waste places near houses; rare, but established and increasing. An established garden escape, well naturalised on rough ground and in waste places, often in partial shade (e.g. at the base of damp hedgerows or where direct sunlight penetrates the woodland edge).

Silwood Park: in damp shade between the corner of The Farm and Cheapside Footpath in 2002-04, but shy of flowering.

Ascot: in the hedge of St George's Lane, leading from London Road down to St George's School, Ascot (1984-2004), and at Ascot Station.

East Berks: not in Druce. Cookham (1957), St Leonard's Hill (1963), Remenham (1965), Ashley Hill (1971), Windsor (1974). Recently at Crazies Hill, in central Bracknell, Woodlands, Stag Meadow. 1% (1km²). Atlas 2000: all except [76]

West Berks: Streatley [58] in 1962-88, Chieveley [47] in 1963-80, Inkpen [36] and Bucklebury [56] in 1966, Aston Tirrold [58] in 1968, Uffington [28] in 1970, Newbury [46] in 1971, Gozzards Ford [49] in 1972, Sutton Courtenay [59] in 1977 and 2001, Ashampstead [57] in 1978, Wallingford [68] in 1980, at the shady edge of the car park on Snelsmore Common [47] in 1982-2004, on the eastern bank of the Wantage road (A338) where it descends from the Ridgeway, just below the junction with the Letcombe road [396853] in July 2002-04. Atlas 2000: [28], [36], [47], [49], [56], [57], [58], [68]

Taraxacum L. *Dandelions*

Section Erythrosperma

Dry sandy or calcareous soils; small plants with red or purple achenes. As a Section there are records from:

East Berks: Twyford, Earley, Wokingham, Sandhurst, Bracknell, Ascot, Bray, Windsor Great Park, Cookham Dean.

West Berks: Snelsmore, Wickham, Kintbury, Crookham, Bessels Leigh, Tubney, Faringdon, Wytham, Tubney, Frilford, Cumnor, Wittenham, Basildon, Padworth, Mortimer, Theale, Frilsham, Bucklebury, Sulham, Tidmarsh.

Taraxacum acutum A.J. Richards. hr 4

West Berks: south of Mapledurham [6776] in 1984.

Taraxacum argutum Dahlst. hr 4

East Berks: Frogmore in 1932.

Taraxacum brachyglossum (Dahlst.) Raunk. hr 4

Taraxacum erythrospermum Andr. ex Besser subsp. *brachyglossum* Dahlst.

Taraxacum vachelliae Dahlst.

Taraxacum hispanicum sensu A. Richards, non Lindb.f.

Common in short turf on acid soils. Told from *T. lacistophyllum* by its dark, unbordered purplish exterior bracts and short ligules with purple stripes.

Silwood Park: short turf in lawns, occasional.

East Berks: Frogmore in 1932.

West Berks: Frilford [4497] in 1929 and 1972, Tubney [4498] in 1909, Abingdon [59] in 1929.

Taraxacum commixtum G.E. Haglund hr 4

Taraxacum commutatum Dahlst., non Jordan

West Berks: Frilford [49] in Druce.

Taraxacum fulviforme Dahlst. hr 4

Taraxacum simile sensu A. Richards, non Raunk.

West Berks: south of Mapledurham [6776] in 1984.

Taraxacum fulvum Raunk. hr 4

East Berks: Reading in 1981.

West Berks: Longworth [39].

Taraxacum glauciniforme Dahlst. hr 4

West Berks: south of Mapledurham [6776] in 1984, Pangbourne [67] in 1985.

Taraxacum lacistophyllum (Dahlst.) Raunk. hr 4

Taraxacum erythrospermum Andr. ex Besser subsp. *lacistophyllum* Dahlst.

Frequent on light, neutral to calcareous soils, often with *T. brachyglossum* (see above).

Silwood Park: short turf in lawns, occasional.

East Berks: Reading [7373] in 1984, Bracknell in 1897.

West Berks: Rival [36] in 1897, Sheepstead 7 Tubney [49] in 1909, Didcot [58] in 1897, Hinksey [50] in 1929, Purley [67] in 1897, south of Mapledurham in 1984.

Taraxacum oxoniense Dahlst. hr 4

Taraxacum helvicarpum Dahlst.

East Berks: Bracknell in Druce (1897).

West Berks: Burghfield [66] in 1897, south of Mapledurham [6776] in 1984.

Taraxacum parnassicum Dahlst. hr 4

Taraxacum silesiacum Dahlst. ex Hagl.

West Berks: Abingdon in Druce (1897).

Taraxacum retzii Soest hr 4

East Berks: near Bagshot in v.c.22 in 1921.

Taraxacum rubicundum (Dahlst.) Dahlst. hr 4

Taraxacum erythrospermum Andr. ex Besser subsp. *rubicundum* Dahlst.

West Berks: in [38] in 1980, Wytham [40] in 1968.

Taraxacum scoticum A.J. Richards hr 4

West Berks: south of Mapledurham [6776] in 1984.

Section Palustria

Marshes and water meadows, occasional but overlooked. Records for the Section from:

East Berks: Earley, Long Moor, bog in Windsor Great Park, Sunningdale.

West Berks: Wytham meadows, Cothill, Frilford, Marcham, Radley, Moulsoford, Fence Wood, Snelsmore, Greenham Common, Aldermaston.

Taraxacum anglicum Dahlst. hr 4

West Berks: Wytham [40] in 1921 and 1968, Swinford [4408] in 1973, Farmoor [450062] in 1968.

Taraxacum palustre (Lyons) Symons hr 4

Leontodon palustre Lyons

Taraxacum limnanthes Hagl. subsp. *limnanthoides* Soest

Taraxacum pollichii Soest

West Berks: Cumnor in 1964, Foxmoor Wytham and Farmoor, all [40] in 1968, Hagbourne [58] in 1976.

Section Spectabilia

Small to medium Dandelions of damp places on acid soils.

Taraxacum faeroense (Dahlst.) Dahlst. hr 4

Taraxacum spectabile Dahlst. var. *faeroense* Dahlst.

Taraxacum eximium auct., non Dahlst.

Taraxacum cimbricum Wiinst.

Taraxacum reclinatum sensu A. Richards et auct., non M. Christiansen

Taraxacum spectabile sensu A. Richards, non Dahlst.

East Berks: Crowthorne in 1947, Sandhurst in 1926.

West Berks: Wytham [40] in 1929, Pangbourne [6376] in 1963.

Section Naevosa

Rare Dandelions with black spotted leaves over more than 10% of the surface area.

Taraxacum euryphyllum (Dahlst.) Hjelt hr 4

Taraxacum maculigerum Lindb.f. subsp. *euryphyllum* Dahlst.

East Berks: Bracknell in 1929.

Taraxacum richardsianum C.C. Haw. hr 4

West Berks: Hagbourne [46] in 1976.

Section Celtica

Water meadows and damp pastures; occasional but overlooked.

Taraxacum bracteatum Dahlst. hr 4

East Berks: Spencer's Wood [7166] in 1984.

West Berks: Moulsoford [58] in 1915.

Taraxacum duplidentifrons Dahlst. hr 4
Taraxacum raunkiaeri Wiinst.

West Berks: Farmoor [4407] in 1968.

Taraxacum fulgidum G.E. Haglund hr 4

East Berks: Reading in 1981

West Berks: Swinford [4408] in 1973.

Taraxacum gelertii Raunk. hr 4

Taraxacum adamii sensu A. Richards, non Claire

West Berks: Appleton [40] in 1965, Greenham Common [56] in 1972, near Stratfield Saye [66] in 1953.

Taraxacum haematicum G.E. Haglund ex H. Øllg. & Wittzell hr 4

Taraxacum haematopus Dahlst., non Lindb.f.

East Berks: Spencer's Wood [7066] in 1984.

Taraxacum hesperium C.C. Haw. hr 4

East Berks: Reading [7274] in 1984, Spencer's Wood [7066] in 1984.

Taraxacum nordstedtii Dahlst. hr 4

Taraxacum cambriense A. Richards

East Berks: Swallowfield in 1897, Finchampstead in 1938.

West Berks: Appleford [5293] in 1965, Bucklebury [5570] in 1934.

Section Hamata

Medium to large plants of roadsides and waste ground with hamate leaf lobes, and characteristic midrib with interwoven purple and green strands visible through a lens.

Taraxacum boekmanii Borgv. hr 4

East Berks: Reading, Wokingham and Henley in 1984.

West Berks: an unlocalized record by Richards from [67] in 1981.

Taraxacum hamatiforme Dahlst. hr 4

East Berks: Spencer's Wood [7166] and [7066] in 1984, and from Reading, Wokingham and Henley in 1984.

Taraxacum hamatum Raunk. hr 4

One of the few woodland Dandelions, also on roadsides and waste ground.

Silwood Park: at the Cannon crossroads.

East Berks: Sunningdale in 1897.

West Berks: Rival [36] in 1929, Appleton [40] in 1965, Aston [58] in 1976, Bagley [50] in 1897, Pangbourne [67] in 1984.

Taraxacum hamiferum Dahlst. hr 4

Taraxacum atrovirens auct., non Dahlst.

East Berks: Reading in 1984.

West Berks: Didcot [59] in 1928.

Taraxacum lamprophyllum M.P. Christ. hr 4

West Berks: Marcham [4596] in 1920.

Taraxacum marklundii Palmgr. hr 4

East Berks: Spencer's Wood [7166] and [7066] in 1984.

Taraxacum pseudohamatum Dahlst. hr 4

One of the biggest and earliest of the common roadside Dandelions. Told by its very large flower heads (50-55mm diameter) and broad bracts (3.5-5mm), dark green beneath.

Silwood Park: common on roadsides in early spring, as at Sunninghill and Cannon Crossroads.

East Berks: Spencer's Wood, Reading, Wokingham, Henley, etc.

West Berks: under-recorded. Recent records from [48] and [67]

Taraxacum quadrans H. Øllg. hr 4

East Berks: Spencer's Wood [7166] in 1984, Reading, Wokingham and Henley in 1984.

West Berks: near Stratfield Saye [66] in 1984.

Taraxacum subhamatum M.P. Christ. hr 4

West Berks: an unlocalized record from [68] in 1982.

Section Ruderalia

This section includes many of the commonest Dandelions of waste and disturbed ground.

Taraxacum acroglossum Dahlst. hr 4

Taraxacum praeradians Dahlst.

West Berks: Tubney [436993] in 1983.

Taraxacum adiantifrons E. Ekman ex Dahlst. hr 4

Taraxacum hemicyclum Hagl.

East Berks: Reading [7767] in 1981 and 1984, Spencer's Wood [7166] in 1984.

Taraxacum aequilobum Dahlst. hr 4

West Berks: an unlocalized record by Richards from [67] in 1981.

Taraxacum alatatum H. Lindb. hr 4

Taraxacum semiprivum Dahlst.

Widespread in grassy places, told by its long, green, narrowly winged, entire petioles.

Silwood Park: roadsides at Sunninghill crossroads and beside London Road.

East Berks: Reading, Wokingham and Henley in 1984.

West Berks: Shefford [3673] in 1929, Caldecott [484965] in 1979, Blewbury [5385] in 1915, south of Mapledurham [6776] in 1984.

Taraxacum ancistrolobum Dahlst. hr 4

East Berks: Reading in 1981.

West Berks: an unlocalized record by Richards from [67] in 1981.

- Taraxacum aurosulum** H. Lindb. hr 4
 East Berks: Reading in 1981.
 West Berks: Wytham [40] in 1968.
- Taraxacum chloroticum** Dahlst. hr 4
 East Berks: Reading [7274] in 1984.
- Taraxacum cophocentrum** Dahlst. hr 4
 Widespread and common in grassy places, told by its small (45mm diameter) flower heads, large, rounded, usually entire terminal leaflet, and ligules striped with brown-purple.
 Silwood Park: occasional in wood margins and scrub as at Ashurst by the church. In compacted ground, with *Plantago coronopus*, in the verge of London Road by the telephone kiosk.
 East Berks: Reading [7274] in 1984.
 West Berks: [3278] in 1932, Cothill [4699] in 1928, Kingston Bagpuize [4098] in 1926, Swinford [4408] in 1973, Didcot [59] in 1928, unlocalized [67] in 1981.
- Taraxacum cordatum** Palmgr. hr 4
 East Berks: Reading [736763] in 1974, Spencer's Wood [7166] in 1984.
 West Berks: Wytham [4708] and Farmoor [4407] both in 1968, unlocalized [67] in 1981.
- Taraxacum croceiflorum** Dahlst. hr 4
 East Berks: Reading, Wokingham, Henley in 1984, Spencer's Wood [7166] in 1984.
 West Berks: Upton [5186] in 1973, south of Mapledurham [6776] in 1984.
- Taraxacum curtifrons** H. Øllg. hr 4
 West Berks: Pingewood [6969] in 1981.
- Taraxacum cyanolepis** Dahlst. hr 4
 East Berks: Sandhurst [8361] in 1926.
 West Berks: Cholsey [586868] in 1983.
- Taraxacum dahlstedtii** H. Lindb. hr 4
 East Berks: Reading in 1984.
 West Berks: Frilford [4497] in 1928, Tubney [4498] in 1929, Farmoor [4407] in 1968, unlocalized [67] in 1981.
- Taraxacum densilobum** Dahlst. hr 4
 Taraxacum percrispum M. Christiansen
 East Berks: Reading [7373] in 1984.
 West Berks: unlocalized [69] in 1982.
- Taraxacum ekmanii** Dahlst. hr 4
 Taraxacum connexum Dahlst.
 Widespread and common weed. The pale, lettuce-coloured leaves are very variable on the same individual (heterophyllous), with large (55mm diameter) deep yellow flowerheads.
 Silwood Park: the commonest big Dandelion of man-made habitats, as at Header House on 4 April 2001.
 East Berks: Reading, Wokingham and Henley in 1984.

West Berks: Faringdon [29] in 2001, Kingston Bagpuize [49] in 1928, Farmoor [4407] in 1968, Eynsham and Botley [40] in 1968, Burghfield [6668] in 1897, near Stratfield [6961] in 1953.

Taraxacum exacutum Markl. hr 4
Taraxacum spilophyllum sensu A. Richards, pro parte, non Dahlst.

West Berks: an unlocalized record by Richards from [67] in 1981.

Taraxacum expallidiforme Dahlst. hr 4
Taraxacum oncolobum Dahlst.

East Berks: Reading in 1981.

West Berks: Aston Tirrold and Blewbury [58] in 1976, Abingdon [503986] in 1979, unlocalized [66] in 1984.

Taraxacum exsertum Hagend., Soest and Zevenb. hr 4

West Berks: Abingdon [503986] in 1979, unlocalized [67] in 1981.

Taraxacum fagerstroemii Sältin hr 4
Taraxacum sublacerifolium Hagend., Soest and Zevenb.

West Berks: on the Berkshire side of Benson weir [613911] in 1981.

Taraxacum fasciatum Dahlst. hr 4
Taraxacum sublatissimum Dahlst.

East Berks: Reading [7373] in 1984.

West Berks: Frilford [4497] in 1928, Tubney [4498] in 1919, Marcham [4596] in 1920, Blewbury [5385] in 1915, New Hinksey [522043] in 1979.

Taraxacum hexhamense A.J. Richards hr 4

East Berks: Reading [7373] in 1984.

Taraxacum horridifrons Rail. hr 4

East Berks: Spencer's Wood [7166] in 1984.

West Berks: south of Mapledurham [6776] in 1984.

Taraxacum huelpersianum Dahlst. hr 4

East Berks: Reading in 1981.

Taraxacum incisum H. Øllg. hr 4

East Berks: Reading [7373] in 1984.

West Berks: Tubney [436993] in 1983.

Taraxacum insigne E. Ekman ex M.P. Christ. & Wiinst. hr 4
Taraxacum ordinatum Hagend., Soest and Zevenb.

West Berks: Moulsoford [5984] in 1915, south of Mapledurham [6776] in 1984.

Taraxacum lacinosifrons Wiinst. hr 4

East Berks: Spencer's Wood [7066] and [7166], Reading [7373] both in 1984.

Taraxacum laticordatum Markl. hr 4
Taraxacum uncosum auct., non Hagl.

East Berks: Reading [7274] and [7373] in 1984.

Taraxacum latissimum Palmgr. hr 4

East Berks: Reading [7373] in 1984.

West Berks: Iffley [521035] in 1984.

Taraxacum leucopodum G.E. Haglund hr 4

East Berks: Reading [7274] in 1984.

Taraxacum lingulatum Markl. hr 4

Taraxacum aequatum Dahlst.

Taraxacum subpallescens Dahlst.

One of the commonest Dandelions of roadsides and grassy places. Told by its long, strongly recurved bracts and the narrow, blunt, elongated process at the tip of the terminal leaf lobe.

Silwood Park: waste ground at the Header House and on the Science Park.

East Berks: Spencer's Wood [7166] and Reading [7373] both in 1984.

West Berks: Longworth [3999] in 1910, Harwell and Kingston Bagpuize [49] both in 1928, Didcot [538900] in 1983, Marcham [4596] in 1897, unlocalized [67] in 1981.

Taraxacum longisquameum H. Lindb. hr 4

Taraxacum latispina Dahlst.

Taraxacum adsimile Dahlst.

Taraxacum mucronatum sensu A. Richards et auct., non Lindb.f.

East Berks: Reading [7373] in 1984.

West Berks: Didcot [58] in 1928.

Taraxacum melanthoides Dahlst. ex M.P. Christ. & Wiinst. hr 4

West Berks: Didcot [538900] in 1983.

Taraxacum multicolorans Hagend., Soest and Zevenb. hr 4

East Berks: Spencer's Wood [7166] in 1984.

Taraxacum obliquilobum Dahlst. hr 4

Taraxacum similatum Dahlst.

East Berks: Cookham [8785] in 1906.

West Berks: Abingdon [4997] in 1928.

Taraxacum oblongatum Dahlst. hr 4

Taraxacum perhamatum Dahlst.

Fertile, damp pastures and other grassy places; widespread and locally common. Told by its small (30-40mm diameter) rounded flower heads with narrow (2-3mm) recurved bracts.

Silwood Park: in grass by The Farm and at Ashurst.

East Berks: Reading [7373] and Spencer's Wood [7166] both in 1984.

West Berks: Marcham [49] in 1929, Boars Hill [4802] in 1929, Beech Wood [66] in 1984, south of Mapledurham [6776] in 1984.

Taraxacum obtusifrons Markl. hr 4

East Berks: Reading [7373] in 1984.

Taraxacum pachymerum G.E. Haglund hr 4

East Berks: Reading [7373] in 1984.

Taraxacum pallidipes Markl. hr 4

East Berks: Spencer's Wood [7166] in 1984.

Taraxacum pannucium Dahlst. hr 4

East Berks: Spencer's Wood [7166], Reading [7373] both in 1984.

West Berks: Didcot [543898] in 1983, Iffley [521035] in 1984.

Taraxacum pectinatiforme H. Lindb. hr 4

East Berks: Reading [7373] in 1984.

Taraxacum piceatum Dahlst. hr 4

East Berks: Spencer's Wood [7166] and Reading [7373], Wokingham and Henley, all in 1984.

West Berks: Didcot [538900] in 1983, Beech Wood [66] in 1984, unlocalized [67] in 1981.

Taraxacum polyodon Dahlst. hr 4

Taraxacum naeviferum Dahlst.

Taraxacum ardisodon Dahlst.

One of the commonest Dandelions of roadsides and other grassy places. Told by its strongly dentate leaves, coloured petiole and dark-blotched interlobes, and the characteristic untidy, wispy, claw-shaped exterior bracts.

Silwood Park: London Road, Buckhurst Road and Cheapside. Also at Ashurst and Sunninghill Crossroads.

East Berks: Reading, Wokingham and Henley in 1984.

West Berks: Letcombe [3785] in 1969, Wytham [4708] in 1969, Didcot [59] in 1977, south of Mapledurham [6776] in 1984.

Taraxacum procerisquameum H. Øllg. hr 4

Taraxacum procerum sensu A. Richards et auct., non Hagl.

West Berks: Tubney [436993] in 1983.

Taraxacum pulchrifolium Markl. hr 4

West Berks: Beech Wood [6967] in 1984.

Taraxacum rhamphodes G.E. Haglund hr 4

East Berks: Spencer's Wood [7166] and Reading [7373], both in 1984, Bisham [847847] in 1982.

West Berks: south of Mapledurham [6776] in 1984.

Taraxacum sagittipotens Dahlst. & R. Ohlsen ex G.E. Haglund hr 4

West Berks: unlocalized record by Richards [67] in 1981.

Taraxacum scotiniforme Dahlst. ex G.E. Haglund hr 4

Taraxacum obscuratum Hagl.

East Berks: Spencer's Wood [7066] and [7166] in 1984.

Taraxacum sellandii Dahlst. hr 4

East Berks: Spencer's Wood [7166] in 1984, Reading in 1981.

West Berks: Tubney [436993] in 1983.

Taraxacum sinuatum Dahlst. hr 4

East Berks: Spencer's Wood [7066] and [7166] in 1984.

- Taraxacum stenacrum** Dahlst. hr 4
 East Berks: Reading in 1981.
 West Berks: Otney and Didcot [59], both in 1976.
- Taraxacum stereodes** Ekman ex G.E. Haglund hr 4
 East Berks: Reading [7373] in 1984.
 West Berks: Iffley [521035] in 1984.
- Taraxacum subcyanolepis** M.P. Christ. hr 4
 West Berks: Greenham Common [46] in 1972.
- Taraxacum subexpallidum** Dahlst. hr 4
 Taraxacum linguatum Dahlst. ex M. Christiansen and Wiinst.
 Taraxacum sublaciniosum sensu A. Richards et auct., non Dahlst.
 Locally common and widespread on roadsides and waste ground. The tips of the terminal leaflets are distinctive (rounded and narrowly lingulate).
 Silwood Park: on waste ground by the Header House.
 East Berks: Reading [7272] in 1968, [756758] in 1975, Sunningdale [9567] in 1926.
 West Berks: Faringdon [2895] in 1921, Cothill [4699] and Sunningwell [4900] both in 1897, Wytham [4708] in 1969, Iffley [521035] in 1984.
- Taraxacum sublaeticolor** Dahlst. hr 4
 East Berks: Caversham [6876] in 1984, probably v.c.23 Oxfordshire.
- Taraxacum subundulatum** Dahlst. hr 4
 Taraxacum hemipolyodon Dahlst.
 Taraxacum similatum Dahlst.
 Taraxacum amphiodon Dahlst. ex Hagl.
 East Berks: Spencer's Wood [7166] in 1984.
 West Berks: Cothill [49] in 1928, Abingdon [59] in 1928, Cumnor [50] in 1969, south of Mapledurham [6776] in 1984.
- Taraxacum subxanthostigma** M.P. Christ. ex H. Øllg. hr 4
 West Berks: Iffley [521035] in 1984.
- Taraxacum tanyphyllum** Dahlst. hr 4
 West Berks: Tilehurst [6673] in 1954.
- Taraxacum undulatiflorum** M.P. Christ. hr 4
 Common on roadsides and waste ground. Not a characterful species, best told by its dull, rather dark green coloured leaves, blotched blackish, some of which have large hastate terminal lobes.
 Silwood Park: by the Manor House and at Ashurst.
 East Berks: Spencer's Wood [7166], Reading [7373] in 1984, Bisham [804836] in 1982, Wokingham and Henley in 1984.
 West Berks: Abingdon [49] in 1976, south of Mapledurham [6776] in 1984.
- Taraxacum valens** Markl. hr 4
 East Berks: Spencer's Wood [7166] and Reading [7373] in 1984.

Taraxacum vastisectum Markl. ex Puol. hr 4

East Berks: Spencer's Wood [7166] in 1984.

Taraxacum xanthostigma H. Lindb. hr 4

East Berks: Reading in 1968 and 1981.

West Berks: Bagley [5102] in 1969.

[**Crepis tectorum** L. *Narrow-leaved Hawk's-beard*]

Reseeded verges and disturbed ground. Worth looking for this species, but not in Druce or Bowen. Phyllaries pubescent on their inner surface; achenes 3-4mm, 10-ribbed

Crepis nicaeensis Balb. *French Hawk's-beard* • b 6 †

East Berks: local and rare. Near Ascot, by the side of the railway. Druce thought this was an error. Worth looking for. Like *C. tectorum*, found on reseeded verges. Phyllaries glabrous on their inner surface; achenes 10-ribbed, 2.5-3.8mm, receptacle pits fringed by lacinate membranes.

West Berks: Wytham [40] in 1893 (**OXF**) (det. J.B. Marsahll).

Crepis biennis L. *Rough Hawk's-beard* b 6 ↓

Cultivated fields, calcareous grassland, roadsides and railway banks; sporadic. "Rare but gradually spreading, and more frequent in hot dry years as in 1895-96" (Druce). "Uncommon and local" (Bowen). Still uncommon. Phyllaries pubescent on their inner surface; achenes 4-7.5mm, 20-ribbed. The basal leaves are broad and look a bit like *Sonchus asper*.

Silwood Park: Cannon Gate, one plant inside a rabbit fence, 1 June 1995. Sunninghill Parish Church, Ashurst, one plant on the edge of the car park, 4 June 1995. Oak Mead, one plant following cultivation of the whole of the top part of the field for the Biodepth experiment; inside the rabbit fence, 20 June 1996, the plant fully 1m tall. A single plant in the rose bed opposite TTC on 16 June 2001.

Ascot: very rare and sporadic in Sunninghill Village (on 4 occasions between 1971 and 2000). In the dog-shitting grassy patch in front of the Telephone Exchange on Upper Village Road in Sunninghill; 13 June 2001. On gravel at Ascot Station in June 2003.

East Berks: local and rare. Maidenhead, Sonning, Hurst, Hurley. Extinct at 3 of its 4 former stations, but still at Hurley (Bowen). Occasional in Windsor and at Legoland in June 2003. <1% (1km²). Atlas 2000: [96]

West Berks: confined to the central Thames valley, centred on [48] and [58] and absent to the west of 40 (extinct at Shrivenham [28]). Frilsham and Ashridge Farm [47], Chilton, East and West Hendred [48], Hitchcopse pit, Marcham and Frilford [49], Eaton Weir [40] (**OXF**), Hagbourne (**OXF**), Blewburton Hill (**RNG**) and Lowbury Hill [58], north of Didcot and Radley pit [59], Bagley Wood [50]. Atlas 2000: [29], [36], [39], [47], [48], [49], [40], [57], [58], [59], [50]

Crepis foetida L. *Stinking Hawk's-beard* b 6 †

Barkhausia foetida (L.) F.W. Schmidt

Woods and rough ground; very rare. The root smells of bitter almonds. Contrasting achenes; inner slender-beaked, outer with short or no beak.

East Berks: long extinct. "No longer in Bisham Wood but in waste ground north of the Great Western Railway at Maidenhead" (Druce). Formerly in Reading (1847) (**BM**), Maidenhead (1847) (**K**) and Bisham Wood (1843). Atlas 2000: no records

West Berks: no records

Pilosella praealta (Vill. ex Gochnat) F.W. Schultz and Sch.Bip. • h 6

Hieracium praealtum Villars ex Gochnat

Hieracium magyricum Naeg. & Peter subsp. *thaumasium* Peter

Hieracium arvorum (Naegel and Peter) Pugsley

Hieracium spraguei Pugsley

Hieracium praealtum Villars ex Gochnat subsp. *thaumasium* (Peter) Sell

Pilosella thaumasia (Peter) Dostál

Pilosella praealta subsp. **thaumasia** (Peter) P.D. Sell *Tall Mouse-ear-hawkweed* • h 6 ↓

A local speciality. Still in the location where it was first recorded as new to Britain in 1918 by Mr C.P. Hurst. It is very distinctive with its tall stems, long stolons, multiple small flower heads, and leaves with sparse but very long, dark, stiff hairs on their upper surface.

West Berks: introduced on a tall, north-facing brick wall on the railway at Hungerford [338686], just east of the High Street, where it has been known from 1918 onwards (**BM** and **OXF**). It is not clear whether it was introduced accidentally or intentionally. At its peak, about 1000 plants grew here at one of its few British localities. The plant is still frequent (c.100 plants) on the shady brickwork of the high wall facing the supermarket car park (1979-2004).

Hieracium L. *Hawkweeds*

This genus is comprised of countless apomictic species that produce asexual seeds, each of which has a carbon copy of its mother's genotype. The Hawkweed flora of Berkshire is relatively straightforward, however, because we have only a few common species, and they are quite distinct from one another. No doubt more detailed study would uncover a greater variety, particularly of alien taxa.

Garden plants with heavily purple-blotched leaves are *H. scotostictum*, *H. spilophaeum* or *H. rionii* (distinguished by the absence of glandular hairs on the involucre bracts of *H. rionii* and the absence of multiple stem leaves in *H. scotostictum*).

- | | | |
|--|-------------------------------|---|
| 1. Plants stoloniferous..... | Pilosella spp. (above) | |
| 1. Plants not stoloniferous..... | Hieracium spp | 2 |
| 2. Stem leaves 8-many, rosette leaves absent at flowering | | 3 |
| 2. Stem leaves 0-8..... | | 5 |
| 3. Leaves sessile, linear, with inrolled margins, bracts with recurved tips..... | Hieracioides | |
| 3. Lower leaves petiolate, broader, flat margins | | 4 |
| 4. Stem leaves crowded, > 15, upper leaves with broad rounded bases | Sabauda | |
| 4. Stem leaves not crowded, < 15, upper leaves narrowed to base | Tridentata | |
| 5. Numerous petiolate basal leaves, but only 0 to 2 stem leaves..... | Hieracium | |
| 5. No rosette leaves and few basal leaves by flowering time; 2 to 8 stem leaves..... | Vulgata | |

All of the Berkshire specimens referred to here have been checked by P.D. Sell and R.G. West. Note that the *Hieracium* records in Druce are unreliable.

Section Sabauda

Stem leaves more than 15, the upper leaves with broad rounded (but not clasping) bases. No rosette leaves at flowering.

Hieracium sabaudum L.

h 6

Hieracium boreale Fries

Hieracium obliquum Jordan

Hieracium perpropinquum (Zahn) Druce

Hieracium bladonii Pugsley

Hieracium argutifolium Pugsley

Hieracium eminentiforme Pugsley

Dry woods, heaths, hedge-banks, roadsides and railway banks on acid soils; absent from calcareous soils. The bracts have a mixture of numerous long, flexuous, whitish pilose hairs (chiefly below), and short, fine glandular hairs.

Silwood Park: much the commonest of Silwood's big hawkweeds. South Lodge, frequent at the pathside on the London Road; 20 August 1980. Elm Slope heathland, two plants amongst *Erica cinerea*; 1 September 1980. Silwood Bottom, on the western boundary, near the Guinness's Hill plants on 26 August 1980. Nash's Slope, seen for the first time in 1990, inside rabbit fences erected as part of the ragwort study, close to The Elms. Obviously been there for many years but prevented from flowering by rabbit grazing. Buckhurst Road, on the roadside verge opposite the main entrance, a large patch against the fence 25 August 1989. These plants had stems with long spreading hairs; peduncle floccose, hairy and glandular; involucre bracts appressed, glandular and hairy; stigmas dark; leaves petiolate. Recently at Sunninghill Crossroads, Tractor Sheds, South Lodge, East Lodge. Locally abundant in the shaded verge of Cheapside Road between Watersplash Lane and Silwood Farm road in the shade of *Castanea sativa* on the Crown Estates side of the road.

Ascot: locally common on heathy banks and steep, dry ditch-sides in Bracknell Forest and elsewhere. On Ascot High Street, below the hedge opposite the shops, and in the garden of Styles on Charters Road in Sunningdale. Swinley Park, Tower Hill, Englemere, Heatherwood Hospital, Coronation Road, South Ascot, Ascot Heath, Kings Beeches, Sunninghill, Blacknest Park, Frostfarm Plantation, North Ascot, Brookside, Cranbourne Tower, Sunninghill Park, Windsor Great Park.

East Berks: between Henley and Twyford, Winkfield, Bowsey Hill, Wargrave, Maidenhead, Bearwood, Loddon Bridge, Wokingham, Earley, Bagshot, Bracknell, Wellington College, Sandhurst, Riseley, Long Moor, Ascot, Sunningdale. Spencer's Wood, Leighton Park, Reading, Finchampstead, Bearwood, Earley, Warfield, Virginia Water, Crowthorne, Broadmoor, Wokingham.

Ancient woodland in Windsor Great Park, locally frequent by the railway at Wokingham, Little Sandhurst and Ambarrow. Atlas 2000: all except [77], [78]

West Berks: occasional on acid soils in the Kennet valley, but absent or rare north of 75. Sanham Green, Inkpen Common, Oaken Copse and Eddington [36], Stibbs Wood [37], Greenham Common, Holtwood and Hamstead Park [46], Sole Common and Snelsmore Common [47], Colliers Copse, Tubney Wood, Youlbury, Cumnor Hurst, Jarn Mound and Boars Hill [40], Goldfinch Bottom, Heath End and Bucklebury (RDG) [56], Frilsham (RDG), Grim's Ditch, Hurdle Shaw, Cold Ash churchyard and Coombe Wood [57], by the railway between Cholsey and Moulsoford [58], Didcot sidings [59], Bagley Wood [50], Pingewood (RDG) [66], Tilehurst (LAN) [67]. Locally frequent on grassy rides through Fence Wood [5171] in 2002. Atlas 2000: [29], [36], [46], [47], [56], [58], [66]

Hieracium virgultorum Jord.

h 7

Told from *H. sabaudum* by its involucre bracts, which are almost hairless and almost all of the hairs are glandular (i.e. it lacks pilose and non-glandular hairs). Often inconspicuous, because roe deer eat the flowering stems, even inside rabbit fences.

Silwood Park: a local speciality, discovered on "Heaths in Silwood Park, rare" by Tony Dixon (1956) (OXF). He can not remember the exact location, but two clumps of plants were found on Gunness's Hill, in *Holcus mollis* grassland, close to the grass track up to Nash's Field, near to the large, spreading oak (tree number 11) on 10 August 1980. Disappeared from this location, but reappeared after an 9 year absence 25 August 1989, 15m further up the slope, inside the rabbit fence erected as part of V.K. Brown's insecticide experiment. Especially good flowering in 1990, when the rabbit-protected plants flowered in about 20 clumps within the fence. There were 5 plants in 2002 and 6 in 2004 from regrowth shoots. These plants are 1m tall, in clumps of 5 shoots; stem almost glabrous, eglandular, even below; 16 leaves below the first flowering branch; 15 major flowering branches, each with 5 heads; leaves with 2-4 prominent linear teeth at the base, hairy only on the veins beneath; involucre 12mm, olive green, almost glabrous but with a central line of sparse, glandular black-based hairs; styles discoloured; heads up to 35mm diameter; peduncles with dense stellate hairs but no glands; all leaves short stalked to sessile with lobed bases; ligules glabrous. Locally frequent in September 2002 in several places in the western parts of Silwood Bottom, where tall grassland had developed following cultivation in 1998; these plants had 38 leaves below the first flowering branch.

Ascot: on banks near the cricket pavilion on Ascot Heath in 2002.

East Berks: no other records but worth searching for in long grass in later summer.

West Berks: between Tilehurst and Sulham (RDG) [67]

Hieracium vagum Jord.

h 7

Told by its broad, more or less erect foliage, usually compact panicle and blackish, glabrescent bracts, generally lacking both pilose and glandular hairs (Pugsley, 1948).

West Berks: by Didcot Station [59] in 1966 (det. P.D. Sell).

Section Hieracoides

Stem leaves many, all sessile (but not clasping) and of the same shape, with recurved margins. The involucre bracts have recurved tips.

Hieracium umbellatum L.

h 7

Heaths, heathy grasslands, and hedge-banks in heathy places, on sandy or gravelly soil; locally common. Stems often distorted by galls. Easy to identify with its numerous narrow stem leaves with inrolled margins.

NVC: U1

Silwood Park: Croquet Lawn, one plant in the south-west corner of the western heather patch; 24 August 1980. Still there on 15 August 1985, but gone by 1988 and not seen since. Gravel Pit, 5 plants inside the rabbit fence (erected 1997) on 20 July 2000, up to 8 by July 2002 and more than 25 in 2004. These plants seldom flower on their primary shoots because the buds are so attractive to roe deer, which jump the rabbit fence to get at them; the regrowth stems flower in September.

Ascot: on Ascot Heath, near the cricket pavilion, Coronation Road, by the gasometers in Sunninghill, Windsor Great Park and in the garden of Styles on Charters Road in Sunningdale. Also locally abundant nearby, on the heaths of Chobham Common National Nature Reserve, just south of the A30 in v.c.17 Surrey.

East Berks: Wellington College, Bowsey Hill, Park Place, heathy wood at Virginia Water (1974), ancient woodland in Windsor Great Park (1974), Bracknell, Bagshot, Ascot, Sunningdale. Wood margins and railway banks or tracks, on acid soils. Absent from chalk. Finchampstead, Leighton Park, Wellington College, Binfield, Knowl Hill, Sandhurst, Earlywood. Barkham Common, Bracknell, on the railway at Little Sandhurst [828623]. Occasional on acid soils to the south and east of a line from Bray to Arborfield, but uncommon to the north and west of this. Atlas 2000: [86], [87], [96], [97]

West Berks: restricted to the Northern Loop and the heaths of the south-east. Absent from the whole of the interior. Wash Common [46], Park Road Abingdon (**OXF**) [49], Tubney Wood and Wootton [40], Crookham Common, Bucklebury Common cemetery and Brimpton [56], Hermitage [57], Didcot Station [59], Aldermaston Soke [66], Tilehurst (**RDG**) [67]. Atlas 2000: [66]

Section *Tridentata*

More than 7 but fewer than 15 stem leaves, the lower petiolate, the upper sessile but non-clasping. Leaf margins flat. No rosette leaves at flowering.

Hieracium trichocaulon (Dahlst.) Johanss.

h 6

Hieracium rigidum Hartman subsp. *trichocaulon* Dahlst.

Hieracium tridentatum auct., non Fries

Hieracium acrifolium auct., non Dahlst.

Hieracium scabrescens auct., non (Johansson ex Dahlst.) W.K. Martin and G.T. Fraser

One of our commonest Hawkweeds, on grassy heaths, open woods, shady banks, railway embankments, churchyards and roadsides on acid soils. Common on acid soils, less so on chalk, mostly on superficial soils. One of the first Hawkweeds to flower (early June, about a month earlier than most of the others). It has fewer than 15 stem leaves (often 8 or so), each with 3 prominent teeth on either side. The heads are smaller, and the leaves broader than other taxa in this Section. The hairs on the bracts consist mainly of non-glandular, black based hairs with sparse arachnoid hairs beneath (glandular hairs and long white non-glandular hairs are absent on our plants).

Silwood Park: South Lodge Wood, a few plants in grass by the path between the Hemlock tree and the tennis court; 12 July 1980 and 5 August 1982. Styles dirty yellow; involucre with no glandular or stellate hairs, but with sparse, dark-based simple hairs; achenes dark; leaves 11, not crowded at the base, with 2 or 3 large, up-curved teeth in the lower half, margin plane, leaves glabrous above; peduncles with no glandular hairs, but dense stellate hairs.

Ascot: common in the hedge-bottom facing the shops on Ascot High Street; these plants have no basal leaves, 11 stems leaves decreasing in size upwards from a basal size of 100mm long by 28mm wide, uniform purple beneath, olive green and almost hairless above, with 7 small (25mm diameter) flower-heads, styles grey and lacking pollen, involucre (10mm x 5mm) with a few short glandular hairs but no stellate or pilose hairs, peduncle with dense white stellate hairs a few pilose hairs, and no glandular hairs. In the hedge-bottom at the start of the Old Mile; these plants are much taller (more than 1m) and have bigger leaves with much bigger teeth, that are green (not purple) beneath. Fernbank Road, Tower Hill, Johnson's Pond, Breakheart Hill, South Forest, Windsor Great Park, Ascot, Sunninghill and by Sole's Pond to the east of Ascot Station. Locally frequent in South Ascot graveyard.

East Berks: Bracknell, Wellington College (1965), St Sebastian (**RNG**) [8065] Whiteknights lake (**RNG**), Bagshot Heath, Bulmarsh, on brickwork of the railway bridge at Loddon Mouth, Sindlesham, Winkfield, Finchampstead, Bracknell, Long Moor, Farley Hill, Sandhurst, Crowthorne, Broadmoor, Wokingham, Upper Star Post. Locally frequent on gravelly tracks through heathland near Lower Star Post and on Poppy Hills in 2002. Atlas 2000: [86], [96], [97]

West Berks: on acid soils to the east of 50 with outliers in the Northern Loop at Boars Hill and Tubney Wood [40]. Bucklebury (**RDG**), Heath End and Brimpton (**OXF**) [56], Hermitage [57], Didcot Station [59], Mortimer West End, Ufton Nervet (**RDG**) and between Aldermaston and Burghfield (**OXF**) [66], Tilehurst (**RDG**) and Pangbourne [67]. Atlas 2000: [46], [40], [57]

Hieracium calcaricola (F. Hanb.) Roffey

h 6

Hieracium rigidum Hartman var. *calcaricola* F. Hanb.

Hieracium tridentatum auct., non Fries

Hieracium scabrescens auct., non (Johansson ex Dahlst.) W.K. Martin and G.T. Fraser

Acid banks, and railway embankments; rare. Told from *H. trichocaulon* by its broader blackish green (not olive green) involucre bracts, and larger flower heads.

East Berks: Sandhurst (1915) (**RNG**). By the railway at Waltham St Lawrence in 1966.

West Berks: Hamstead Marshall [46] in 1931 (**OXF**).

Section *Vulgata*

No rosette leaves and few basal leaves by flowering time; 2 to 8 stem leaves.

1. Basal leaves with conspicuous purple-brown spots **H. maculatum**
1. Basal leaves unspotted 2
2. Stems leaves glabrescent on upper surface **H. diaphanum**
2. Stem leaves pilose on upper surface 3

3. Glandular hairs dense and strong, heads medium, 10-20 **H. acuminatum**
 3. Glandular hairs short and fine, heads small, 5-15 **H. cheriense**

Hieracium acuminatum Jord. h 6
Hieracium lachenalii auct., non C. Gmelin
Hieracium chlorophyllum auct., non Jordan ex Boreau
Hieracium strumosum (Ley ex W.R. Linton) Ley

Woods and railway banks on acid soils; uncommon. Basal leaves are ovate and long petiolate, often withering early. There are 6 or more stem leaves, pilose on both surfaces and the margins. Flower-heads 10 or more per stem. The base of the involucre is rounded (not truncate).

East Berks: roadsides, railways and the edges of woods, commonest on the chalk. Reading Station, Whiteknights Park, Twyford, Wick Hill, Crowthorne, Wellington College. Bear Wood, Shottesbrooke, between Wargrave and Henley (**RDG**). California, Woodley, Twyford. Atlas 2000: [76]

West Berks: Inkpen [36], by the railway at Grove [39] and [49], Milton [49], Appleford and Didcot sidings [59], Brimpton Common and Crookham Common [56], Streatley [58], Kennington and Bagley Wood [50], Mortimer West End, Mortimer Common (**RDG**) and Aldermaston Soke [66], between Bradfield and Pangbourne (**RDG**) [67]. Atlas 2000: [46], [56]

Hieracium cheriense Jord. ex Boreau h 6
Hieracium porrigens auct., non W.R. Linton
Hieracium lachenalii C. Gmelin var. *pseudoporrigens* Pugsley
Hieracium tunbridgense Pugsley

Stem leaves 4-6 with coarse, sharp teeth. Flower-heads 5-15, small, on long, slender, erect peduncles. The dark glandular hairs on the involucre are short and fine.

East Berks: shady, acid soil at Wellington College (1965).

Hieracium diaphanum Fr. h 6
Hieracium scotophyllum auct., non Vukot.
Hieracium diphanoides auct., non Lindeb.
Hieracium irriguum auct., non (Fries) Dahlst.
Hieracium cacuminatum auct., non Dahlst.
Hieracium scytophyllum auct., non Omang
Hieracium barbareaefolium auct., non K. Lonnr. ex Dahlst.
Hieracium ornatum sensu Ley, non Dahlst.
Hieracium scanicum sensu Ley, non Dahlst.
Hieracium daedalolepioides (Zahn) Roffey
Hieracium anglorum (Ley) Pugsley

Acid grassland, rare. Stem leaves 2-3, glabrescent (not pilose) on the upper surface. Flower heads 3-10, not floccose, but with numerous unequal dark glandular hairs.

East Berks: by the railway in Twyford (1965), Wellington College (1916) (**RNG**).

West Berks: Boars Hill [40] in 1948, old brickwork at Didcot Station [59] in 1980 (**OXF**). Atlas 2000: [59]

Hieracium maculatum Sm. • h 7

This alien is a handsome dark-spotted plant, and may well be of local horticultural origin, but railways have played a large part in its distribution. It has been found in gardens, on old walls, railways, roadside banks and plantations (Brewis, Bowman and Rose, 1996). This plant has 3-5 stem leaves with us (cf. *H. scotostictum* which is another spotted garden plant, but with just 1 stem leaf).

West Berks: woods in north Berkshire, rare. Buckland [39] in 1860 (**OXF**), on the railway bank at Hermitage [57] in 1967, Bagley Wood [50] in 1963 (**OXF**) Atlas 2000: [57], [59], [68]

Section Hieracium

Numerous petiolate basal leaves, but only 0 to 2 stem leaves.

Hieracium scotostictum Hyl. • h 5
Hieracium praecox auct., non Schultz-Bip.

Grown in gardens and sometimes found on railways and old walls. The spotted leaves are mostly basal and are more than half-covered in purple-brown blotches. There is only 1 stem leaf or none at all. The involucre has a mixture of black glandular and black non-glandular hairs. Very early flowering for a Hawkweed, as indicated by its former specific name.

West Berks: abundant on gravel paths and walls in the garden of Sutton Courtenay Manor [5094] in May. It has grown here for as long as anyone can remember, and is still there in 2004.

Hieracium exotericum aggregate h 6

Widespread as an aggregate, generally on the chalk, where it grows on shady lanes, railway banks and in dry beech woods; on calcareous or acid soils. Occasional. Note that there are no Berkshire records of *H. exotericum* Jord. ex Boreau.

Hieracium sublepistoides (Zahn) Druce h 6

Hieracium murorum L. subsp. *sublepistoides* Zahn

Hieracium exotericum Jordan ex Boreau var. *sublepistoides* (Zahn) Pugsley

Common on hedgebanks, railways and shady roadsides. Basal leaves green, unspotted. Styles yellow; stem leaves 1 or 2; involucre with dense glandular and stellate hairs and sparse simple hairs; basal leaves pale green or slightly purple tinged below; long petioles (4cm) with dense subplumose hairs; stems densely stellate, with occasional glandular and few simple hairs; peduncles densely glandular and stellate hairy; basal leaves up to 13cm (including a 4-5cm petiole) x 5cm with or without strong cordate teeth at base.

Silwood Park: Ashurst Lodge, in 1981, a good patch of plants beneath the massive *Pinus nigra* by the main drive, where Charles David was in the habit of parking his 2CV. South Lodge Wood, in a clearing near the Wellingtonia in 1990.

Ascot: common in shady grass behind the beech hedge in the garden of Styles on Charters Road 1979-2004. These plants have 1 small, petiolate stem leaf (25mm x 5mm) and 10 truncate to sub-cordate basal leaves (blade 5cm x 3cm, petiole 2.5cm), light grass-green with sparse pilose hairs above, paler but unmarked beneath with midrib pilose hairy, leaf margins with 6 elongated-tipped teeth on each margin, flower-heads 4, 3.5cm diameter, styles bright yellow, involucre with dense black glandular hairs, lines of stellate hairs, but few pilose hairs, and peduncles with moderately dense black glandular hairs, a sparse covering of stellate hairs and no pilose hairs.

East Berks: Cox's Wood Crowthorne (RNG) in 1916. Easthampstead Park. The great H.W. Pugsley who wrote *A Prodromus of the British Hieracia* collected the plant in v.c.22 near Henley pre-1947. Wellington College (1965), Frogmore. Bisham Wood (1966-88). On 4 June 2002 the Bisham Wood plants were locally abundant on sunny roadsides where the road snakes down from Quarry Wood; they had stem leaves 1, basal leaves 8, with white-shaggy petioles 3cm long, and blades 7cm x 3cm. The leaves had sparse white hairs on the bright green upper surface, and similar but denser hairs on the pale green under surface. Flower heads 8, ray florets with non-glandular tips. Involucral bracts with a dense covering of black glandular hairs with sparse, wispy, clear, non-glandular hairs amongst them, and dense stellate hairs on the margins. The black glandular hairs had unusually long stalks, and similar hairs were also present on the peduncle. Atlas 2000: [86], [96]

West Berks: on an old garden wall at Wasing Park [5764], Grims Ditch near Hurdle Shaw [5979], in the railway cutting at Chilton [58], Sulham Wood [6477] (RDG) in 1916, chalk slope at Lower Basildon [6078] (LAN) in 1960. Also at Forbury Grove [36], Hen Wood [40], Lower Basildon [67]. Here is a description of the plants from Chilton railway cutting [4985] on 11 June 2004: stem 45 cm tall, heads 6 with involucre 11mm long; stem leaf 1 measuring 20mm x 10mm and basal leaves 9, the biggest with pink-based, villous petiole 45mm long, and blade 65mm x 30mm, with 8 indistinct, red-tipped teeth on each margin, the base truncate or slightly cordate, pale grass green above and dull pale green beneath with no hint of purple, very sparse long white wispy hairs above, slightly denser below and quite dense on the midrib. Petals 15mm long with hairless tips, styles bright yellow. Involucre with dense, long, black glandular hairs, all roughly the same length, rather sparse, appressed white stellate hairs and very sparse long white wispy hairs. Peduncle with similar kinds of hairs, but the black glandular hairs thin out rapidly down-stem. Atlas 2000: [48], [40], [56], [58]

Filago vulgaris Lam. *Common Cudweed* th 7

Gnaphalium germanicum L., nom. inval.

Filago germanica L., non Hudson

Dry, acid grassland, sandy arable land on acid soils, bare places on heaths and railway banks. Druce thought it "too common to need a detailed list of localities" but Bowen thought it "uncommon and absent from the chalk and northern clay". It is clearly much reduced since Druce's time, but perhaps its decline has stabilised. Capitula many (20 to 40) in each cluster, the most apical leaves do not overtop the capitula.

Ascot: no records

East Berks: Farley Hill, Finchampstead, Coleman's Moor, Park Place, Wellington College, Owlsmoor, Maidenhead, Heywood Park. Rare in the Thames valley and along the Blackwater River, but absent from the whole of the interior. Dinton Pastures, Wishmoor Cross. <1% (1km²). Atlas 2000: all except [96]

West Berks: occasional in the Northern Loop, rarer in the Kennet valley and absent from the whole of the interior. “On Boars Hill [40] it was so abundant in the late autumn of 1894 as to be noticeable from a considerable distance” (Druce). Buckland Warren [39], Greenham Common [46], Boxford Common and Snelsmore Common [47], Frilford Heath, Dry Sandford Pit and Cothill [49], Black Horse Field [468979], Youlbury and in a field north of the sandstone pit at Tubney [40], Radley pits [59], heath edge to the north of Greenham Common [501653], Crookham Common and Bucklebury Upper Common [56], Sulham [67]. Atlas 2000: [29], [39], [46], [47], [49], [40], [56], [57].

Filago lutescens Jord. *Red-tipped Cudweed*

th 7 †

Filago germanica auct., non L. nec Hudson

Filago apiculata G.E. Smith ex Bab.

Gifola apiculata Chrtek and Holub, nom. illegit.

A former local speciality, now extinct. Dry sandy fields, bare places in dry, acid grassland, and railway banks on sandy soil. Always very rare in Berkshire. A *Red Data Book* species of light, open, sandy soils of low fertility on ground with sporadic rather than regular disturbance (e.g. from rabbit scrapes). Formerly quite common on the edges of arable fields, growing with *Filago minima*, *F. vulgaris*, *Geranium pusillum* and *Spergula arvensis*, but declined dramatically since the 1950s from more than 200 sites and now known from just 16 sites in 12 hectads in the whole of England. The decline is due to a shift from over-winter stubble and spring planting to autumn planting of winter wheat, coupled with increased herbicide and fertiliser use. Capitula many (10 to 40) in each cluster, the capitula overtopped by 1 or 2 apical leaves; the whole plant is yellowish woolly, and the tips of the bracts are reddish and erect (not recurved and yellowish).

East Berks: extinct. Wargrave (**K**) in 1871, Sonning cutting (**BM**) in 1890. Twyford (1890-96) (**OXF**). On the road from Hare Hatch to Crazy Hill near Wargrave (1897). Near Maidenhead (**BM**) in 1908, and Cookham Dean (**OXF**). Sonning Cutting (**RNG**) growing with *F. minima* and *F. vulgaris*. Ambarrow (1897), Finchampstead (1891 and 1892) (both **OXF**). Between Loddon Bridge and Woodley in 1950 but no specimen. All of the Berkshire sites are thought to be extinct, but there is a post-1970 record in the *Red Data Book* from [77] that I can not trace. The Twyford [77] record was late nineteenth century, and the unsupported Woodley [77] record is from 1950. It could be that this is the Oxford station at ‘Flowing Spring’ (Sonning Eye chalk pit at [7476]), but if so, it is probably an error for *F. pyramidata* (see below).

West Berks: extinct. Formerly in the Northern Loop at Frilford [49] in 1912 (**BM** and **OXF**) and Cothill [49] and Bessels Leigh [40] in 1918 with an outlying station in the south-east at Padworth [66] in 1892 (**OXF**). The most recent authenticated records were from a cornfield at Cothill on 12 July 1940 (**RNG**) and a barley field at Cothill (**K**) in 1944.

Filago pyramidata L. *Broad-leaved Cudweed*

o th 7 ↓

Filago spatulata auct., non C. Presl

Another *Red Data Book* species of arable land and other habitats that have a long history of disturbance, formerly known from more than 100 hectads in Britain. Of the 8 surviving English sites, 3 are on arable land growing with *Filago minima* and *F. vulgaris*, 3 are in chalk quarries growing with *Cerastium pumilum* and *Iberis amara*, and 2 are on chalk spoil by railway lines (see *F. lutescens*, above). The *Red Data Book* records all our Berkshire populations as extinct. The extant record for [77] is from Sonning Eye chalk pit in Oxfordshire (v.c.23) [7476] where the plant has been collected repeatedly since 1870 (Killick, Perry and Woodell, 1998). Note, however, that several reintroduction programmes are currently under way in Berkshire, so this position may change. The plant has many (10-40) capitula in each cluster, and the capitula are overtopped by 2-5 apical leaves; the whole plant is white woolly (not yellowish) and the tips of the bracts recurved and yellowish (not reddish and erect).

NVC: OV 15

East Berks: extinct. Pre-1900 records from Wargrave, Coleman’s Moor, Stubbings Heath, Knowl Hill, and Maidenhead Thicket. Formerly known from 4 sites on the chalk in the north-west, and from Maidenhead Thicket, but not seen this century. Atlas 2000: no records

West Berks: close to extinction but reintroductions are under way. Formerly in the Northern Loop at Cothill [4699] in October 1922 (**OXF** and **RNG**), and between Cothill and Frilford [4598] in 1954. Seeds were sown experimentally in Dry Sandford Pit in autumn 2000 but came to nothing. There used to be two outlying stations. At Pusey [341959] in 1961, at Buckland Warren [39] in 1966, and again from the corner of a sandy arable field [333962] in 1977. When the golf course was built, this piece of ground was kept under cultivation in an attempt to ensure the survival of the Cudweed (it was made an SSSI in 1992). There were 20 plants in August 2002. There is a record of the plant growing with *Lathyrus aphaca* between Moulsoford and Streatley [580833] in 1962, but this record is not supported by a specimen. Atlas 2000: [39]

Filago minima (Sm.) Pers. *Small Cudweed*

th 6 ↓

Gnaphalium minimum Smith

Logfia minima (Smith) Dumort.

Dry places on sandy commons and heaths in sunny places. In Druce’s time it was “locally abundant, and common on all the sandy ground” but by Bowen’s time it was “occasional but decreasing”. Now it is local and uncommon. Capitula few (2-7), with the apical leaves not overtopping capitula.

NVC: U 1

Silwood Park: on sand and gravel on the easternmost plots at Ashurst Warren; origin unknown, but probably imported as dormant seeds in the ballast used to fill the raised beds (1998-2000).

Ascot: on open sandy heathland by the railway at Englemere in 2000. Formerly at Sunninghill and Sunningdale.

East Berks: Marlow, Wellington College, Sandhurst, Ambarrow, Bagshot, Bracknell, Binfield, Bearwood, Windsor Great Park, Riseley, Twyford, Sonning. Bearwood, Coleman's Moor, Bulmershe, Woodley (**LAN**) in 1957, Wellington College, Crowthorne, Owlsmoor, Kings Mere. Woodley pit. Extinct at many of its former sites, and now confined to the southern heaths (south of 70), with outlying stations from eastern Reading to Twyford. Locally frequent on gravel tracks through heathland near Lower Star Post, Wishmoor Bottom, and on Poppy Hills in 2002. With *Trifolium arvense*, *Erigeron acer* and *Rumex acetosella* in the old sandpit at Cookham Dean [874858] in July 2003. <1% (1km²). Atlas 2000: [76], [77], [86], [87], [88], [96]

West Berks: occasional in the Northern Loop and on the heaths of the south-east in [56], but absent from the whole of the interior to the north of 75 and the south of 95. On sandy arable land at Buckland Common [333963], Greenham Common [46], Snelsmore Common [47], Frilford Heath [4698], Youlbury [40], Crookham Common, Cold Ash, Brimpton and Woolhampton Common [56], Hermitage [57]. Atlas 2000: [39], [46], [47], [49], [40], [56], [57]

Anaphalis margaritacea (L.) Benth. *Pearly Everlasting* ● h 8
Gnaphalium margaritaceum L.

An occasional garden plant from perennial borders, rather rare as a garden escape or throw-out. On heathy waste ground and waysides.

Ascot: a rare garden escape in Course Road, Ascot, in November 2001.

East Berks: not in Druce or Bowen. Recently at Alder Moors, Ambarrow, Road Research Lab at Crowthorne, Wishmoor Bottom, Wishmoor Cross, Ashley Hill, March House. 1% (1km²). Atlas 2000: [77], [86], [88]

West Berks: first recorded from a roadside south of Letcombe Bassett [38] in 1947. In several spots in Appleton [4401] in September 2002. Kingston Bagpuize [4098] in July 2003. Atlas 2000: no records

Gnaphalium sylvaticum L. *Heath Cudweed* h 7 ↓
Omalotheca sylvatica (L.) Schultz-Bip. & F. Schultz

Bare dry ground on tracks in woods, heaths and commons. A short-lived perennial of dry open woods and sandy heaths on the acid Bagshot sands, often found with *Veronica officinalis*. Absent from the chalk and probably decreasing.

East Berks: Bulmarsh, Warren Row Common, Ambarrow, abundant on Bagshot Heath, Farley Hill, Virginia Water. Park Place, Queens Mere, Sandhurst, Bracknell, Ascot, Windsor Forest, Deer Rock Hill on the Berkshire side of the boundary stream. Occasional on heathy ground to the south of 70, but rare or extinct to the north of this. Between Lower Star Post and Wishmoor Bottom on sandy tracks in full sun (1971-2000). 1% (1km²). Atlas 2000: [76], [86], [97]

West Berks: in two centres, on the Northern Loop and the south-eastern heaths. On the northern edge of the heath on Greenham Common [46], Snelsmore Common [47], Frilford Heath and Cothill [49], Youlbury and Boars Hill [40], Crookham Common, Bucklebury Upper Common and Wasing Wood [56], Greathouse Wood and Fence Wood [57], Bagley Wood [50], Padworth Common [66], Sulham and Beal's Copse, Tilehurst (**LAN**) [67] in 1962. There were more than 200 plants in an open wood close to Padworth Church [661611] in August 2003. Atlas 2000: [37], [47], [49], [40], [56], [57], [50], [66], [67]

Inula helenium L. *Elecampane* ○ h 7

Pastures, plantations and hedge-sides; local, but sometimes well established. A statuesque plant (up to 2m tall) with alternate leaves that clasp the stem with conspicuous rounded lobes.

East Berks: Rare in the Thames valley and around Reading (**RDG**) in 1933. Shinfield horticultural station (1960), Park Place (1965), Bowsey Hill (1965), Redstone Farm [8774] (1966). A group of 20 flowering stems in the verge opposite Lock's House [834677], and a thriving population in the southern ditch of the Drift Road at Braywood Orchard [874750] in July 2003. 1% (1km²). Atlas 2000: [76], [78], [86], [87], [88]

West Berks: "Elecampane grows plentifully on a dry pasture close, upon Botley Hills, also upon Mr Tudball's house, beyond Hinksey" (Lyle, 1660) but extinct there by 1897. Rare, scattered throughout, but absent from large areas of the interior (north of 70 and south of 85). Recent records from Eaton Hastings [29], Denford [36], West Challow [38], Shellingford [39], Kingston Bagpuize and Tubney [49], planted at Boars Hill [40] by Sir Arthur Evans in 1933, Wytham (**RNG**) [40], Greenham Common [506638] and [509642], Theale (**RDG**) [6471] in 1923. Atlas 2000: [29], [38], [39], [40], [56], [58]

Inula conyzae (Griess.) Meikle *Ploughman's-spikenard* h 7 ↓
Aster conyzae Griess.
Inula conyza DC.

Wood margins, grassland, roadsides, railways and hedge-banks, heathy places, preferring calcareous sandy ground, rarely on walls, in small quantity; local and decreasing. The young plant bears much resemblance to foxglove.

NVC: CG 2,4,5; W 13

East Berks: Marlow New Lock, common on the chalk about Park Place, Loddon Bridge, Cookham, Wellington College Station, Stubbings Heath, Hurley, Maidenhead, Quarry Wood. Recently at Park Place [8583], Cookham Down, by the railway east of Shottesbrooke Farm [850789], Heywood Park [8579], St Leonard's [9374]. 1% (1km²). Atlas 2000: [77], [78], [87], [88], [97]

West Berks: occasional on the eastern chalk [58] and in the Northern Loop. Extinct at most of its former sites elsewhere. Recent records from Inkpen [36], Dry Sandford Pit [49], Chilswell, Hurst Hill and Upper Seeds at Wytham [40], Hampstead Norreys, Burnt Hill and Hurdle Shaw [57], Lollingdon Hill, Aston Upthorpe Down, Cholsey, on the old railway between Chilton and Upton and on Streatley Hill [58], Didcot [59], Pangbourne [67], Purley [67]. Atlas 2000: [36], [39], [47], [49], [40], [56], [57], [58], [50], [67]

Pulicaria vulgaris Gaertn. *Small Fleabane*

th 8 †

This *Red Data Book* species is probably extinct in Berkshire. It is an annual plant of winter-flooded hollows in grassy places like village greens and cart tracks that were well hoofed, well grazed and fertilised by animals. Its stronghold is in the New Forest, in hollows in pony-grazed lawns growing with *Alopecurus geniculatus*, *Bidens tripartita*, *Gnaphalium uliginosum*, *Lythrum portula*, *Polygonum aviculare*, *Persicaria hydropiper*, *Potentilla anserina* and *Senecio aquaticus*. It flowers in August and September, and possesses a long-lived seed bank. Recorded from two of our squares in the *Red Data Book*, [56] and [76], but both these sites are in North Hampshire (v.c.12): at Springwater Farm, Bramshill [7462] where there were 59 plants in 1982-83, and Ashford Hill Meadows [5662] where they were last seen in 1988. The original population at Springwater Farm was by a small pond that was lost to road widening, although plants were moved to near Riseley Mill [7362] by the river, later refound at Springwater Farm in two nearby fields (Brewis, Bowman and Rose, 1996). It would be worth searching the Berkshire part of the streambank, where the R. Whitewater flows into the Blackwater River [742636] and downstream from here towards Swallowfield Park.

East Berks: formerly at Bulmarsh Heath (BM) in 1800, Shinfield (1830) and Wokingham, between Bray and Holyport (OXF) in 1891 and Sandford Mill (1897), but now extinct.

West Berks: extinct. Planted at Trash Green [6569] and Wokefield Common [6566] in 1966. Formerly between Mortimer and Three Firs [66] in 1918, and at Burghfield [66] in 1799.

Telekia speciosa (Schreb.) Baumg. *Yellow Oxeye*

• h 7

Bupthalmum speciosum Schreber

A statuesque garden plant of moist grassy places, often planted near water features. The feathery involucre bracts are characteristic.

Silwood Park: one patch 3m wide, long persistent (1979-2004) despite being surrounded by taller *Solidago canadensis* on waste ground near The Greenhouses.

East Berks: no other records

West Berks: in a pit in a wood at Pusey [353964] in 1966 and in a wild garden at Pusey [358967] in 1971.

Grindelia squarrosa (Pursh) Danal

• th 7 †

East Berks: not in Druce. An alien at Twyford Mill in 1914 (OXF). Thought extinct by Bowen.

Solidago virgaurea L. *Goldenrod*

h 7 ↓

Solidago angustifolia Miller

Woods, thickets and heaths on acid sandy soils; absent from calcareous soils. Declining, perhaps as a result of eutrophication from atmospheric nitrogen and/or fertiliser drift from adjacent farmland.

NVC: W 10,12,16,24

Silwood Park: formerly on Church Lane Footpath, in heathy ground on the edge of the path growing with *Teucrium*; five or so plants in the grass below overhanging beech tress, at the gate from Herons Brook Meadow; 17 September 1980. Still there in the same numbers in 1989, but not seen since 1994 although the *Teucrium* is still there. Thought to be extinct but rediscovered on 28 August 2004, when a single individual, 80 cm tall, was found just inside the fence growing with *Stellaria holostea*, 2m east of the concrete gate post of the track from Herons Brook Meadow onto Church Lane. Lily Pond, on heathy ground to the south-west of the pond in 1959, but gone before 1979.

Ascot: very local and rare on the Berkshire side of Virginia Water, and on Ascot Heath race course. A single plant in gravel on the grave of John W.E. Howey (*d.* 1924) in South Ascot churchyard in August 2004.

East Berks: Bulmarsh, Wellington College, Ambarrow, Finchampstead, Sandhurst, Long Moor, Bagshot, Easthampstead, Sunningdale, Sunninghill, Windsor Great Park, Farley Hill. Occasional on the heaths to the south of 70, but rare or absent to the north of this. Finchampstead, Wellington College, Easthampstead, New Lodge, Ashley Hill, Coleman's Moor, Virginia Water, Farley Hill [7564]. 1% (1km²). Atlas 2000: all except [78], [87]

West Berks: probably extinct in the Northern Loop (formerly in Hitchcose pit [453997] and Dry Sandford pit [465996]) and now confined to the heaths of the south and south-east: Inkpen Common [36], Enborne Street and Greenham Common [46], Snelsmore Common [47], Brimpton [56], Bucklebury Upper Common [56], Coombe Wood, Yattendon, Frilsham and Great House Wood [57], Padworth Common [66], Bradfield [67]. Locally frequent on grassy rides through Fence Wood [5171] in 2002. Atlas 2000: [36], [46], [56], [57], [59], [66], [67],

Aster L. *Michaelmas-daisies*

These were all recorded as *A. novi-belgii* in the past. In fact, this is one of the least common of the garden escapes. In order of abundance, the Berkshire plants are *A. x salignus*, *A. lanceolatus*, *A. x versicolor* and *A. novi-belgii* then *A. novae-angliae*. The key feature is the shape, relative size, and degree of appressedness of the involucre bracts (phyllaries). Are they widest below the middle and neatly appressed (as in the common *A. x salignus*), or are they widest at or above the middle and spreading untidily (as in *A. novi-belgii*)? Another important point is the extent to which the leaf base clasps the stem: is the clasping conspicuous (as in *A. x versicolor*) or is the leaf base definitively non-clasping (as in *A. lanceolatus*). The most popular garden plant these days is the short-stemmed *A. x frikartii* 'Mönch' but this is not naturalised and is seldom found as an outcast. Other details are given separately for each taxon. The hunting season for these plants is September to November, peak activity time for alien plant enthusiasts.

Aster novae-angliae L. *Hairy Michaelmas-daisy*

• h 8

Roadsides and waste ground, temporarily established, but rare. Upper parts of plant with abundant long patent hairs; glandular hairs on the involucre. No longer common as a garden plant.

Silwood Park: local, but long-lived, on disturbed ground by The Greenhouses.

East Berks: not in Druce. Reading tip, Bearwood, Woodley tip. <1 % (1km²). Atlas 2000: [76], [77], [86], [96]

West Berks: Inkpen [36], Newbury [46], Botley [4906], Bucklebury Upper Common [56], Radley pit [59], South Hinksey and Grandpont [50]. Atlas 2000: [29], [36], [39], [46], [50]

Aster x versicolor Willd. *Late Michaelmas-daisy* = **A. laevis x A. novi-belgii**

• h 8

Aster x laevigatus auct., non Lam.

Aster novi-belgii L. subsp. *laevigatus* auct., non (Lam.) Thell.

Rare casual of waste ground. Tall plants (up to 2m), with relatively broad, short stem leaves (less than 5 times as long as wide) with conspicuously clasping leaf bases, and outer phyllaries much shorter (50-75%) than the inner ones.

Silwood Park: rare, by the Header House in 1982. Not seen since.

East Berks: Park Place (1800) (**BM**); Smallmead tip (1965), Ascot (1929) (**OXF**). 1 % (1km²). Atlas 2000: [86], [96], [97]

West Berks: Atlas 2000: [46], [58]

Aster novi-belgii L. *Confused Michaelmas-daisy*

• h 8

Aster longifolius auct., non Lam.

Aster floribundus auct., ? an Willd.

Aster brumalis Nees, nom. illegit.

Aster novi-belgii L. subsp. *floribundus* (Willd.) Thell.

Found as a garden escape in waste places near Reading. Locally established by the Thames, occasional on waste ground elsewhere, in small quantity. Stem leaves narrowly clasping, outer phyllaries widest at or just above the middle, about same length as inner ones, and not neatly appressed to the capitulum.

Silwood Park: by The Greenhouses in small quantity.

East Berks: Scattered throughout, but perhaps over-recorded for *A. x salignus* and *A. x versicolor*. Maidenhead. <1 % (1km²). Atlas 2000: all except [78], [87]

West Berks: all along the Thames valley, and scattered in the Kennet valley, but absent from the interior. Locally frequent on sunny waste ground in New Botley [4906] in September 2004. Atlas 2000: [46], [40], [50]

Aster x salignus Willd. *Common Michaelmas-daisy* = **A. novi-belgii x A. lanceolatus**

• h 8

Aster x lanceolatus auct., non Willd.

Aster x longifolius sensu Clapham et auct., non Lam.

Easily the commonest naturalized Michaelmas daisy in Britain (Stace, 1997). This is the conspicuous railway-side taxon. Almost never seen in gardens these days, so it is evidently long-persistent as an outcast. Like *A. novi-belgii* but the outer phyllaries are widest *below* the middle, and are rather neatly appressed to the capitulum (not spreading or recurved).

Silwood Park: below the churchyard wall at Ashurst 1979-2004. By the Weeping Willow at the entrance to The Farm 1979-2004.

East Berks: not in Druce. Waste ground, Ascot (1930). Sandhurst, Maidenhead, Windsor. 3% (1km²). Atlas 2000: [86], [96], [97]

West Berks: Mortimer [66] in 1930 (**OXF**), Didcot [59] in 1987. Locally dominant in large patches in the unmown water meadows by the R. Thames north of Donnington Bridge [5204] in 2002. On waste ground in Botley [40] and Grandpont [50] in 2002. Atlas 2000: [46], [40], [58]

Aster lanceolatus Willd. *Narrow-leaved Michaelmas-daisy* ● h 8

Aster tradescantii auct., non L.

Aster paniculatus auct., non Lam.

Aster lamarckianus auct., non Nees

This is the second commonest of the Michaelmas-daisies with us, and has relatively small, dirty white flowers. Plant lacking abundant long patent hairs. Leaves narrow (mostly less than 10mm), upper leaves tapering to the base and not clasping. White flowers, fading to pale mauve. Bordered bracts, the outer ones half the length of the inner bracts. Locally frequent in roadside ditches and on waste ground.

Ascot: waste ground, Ascot (1929) (**OXF**). Recently at South Ascot, on the track to Sunningwell Bog below St Georges School; 28 October 1995. In the eastern verge of Charters Road close to the boundary bridge beyond Styles (1982-2004). On waste ground near The Carpenters Arms on Upper Village Road in Sunninghill in October 2002.

East Berks: not in Druce. Wokingham. Locally frequent at Fifield [908761], in the ditch of the road leading up to New Lodge in September 2002. 1% (1km²). Atlas 2000: [86], [96], [97]

West Berks: Cothill [49] in 1918, South Hinksey [50] in 1897. Atlas 2000: [40]

Felicia amelloides (L.) Voss. *Blue Marguerite* ● h 5

A hanging basket and conservatory flower, grown for late season colour. Shrubby plants usually treated as annuals. Rare as a self-sown escape. Told from *F. bergeriana* by its glabrous (not hairy) fruits.

East Berks: on the main village street of Cookham [8985] in September 2002. <1% (1km²).

Erigeron annuus (L.) Pers. *Tall Fleabane* ● th 5 ↓

Aster annuus L.

Erigeron strigosus Muhlenb. ex Willd.

Erigeron annuus (L.) Pers. subsp. *strigosus* (Muhlenb. ex Willd.) Wagenitz

Phalacrolooma annuum (L.) Dumort. subsp. *strigosum* (Muhlenb. ex Willd.) Adema

Roadsides and rubbish tips, "rare but likely to spread" (Bowen). This plant is very common in familiar-looking urban and waste-ground habitats in northern France, and it is interesting that despite the predictions, Tall Fleabane has not yet spread, even with climate warming and massive soil disturbance associated with Channel Tunnel construction and such like.

East Berks: not in Druce. Reading tip (1960) and Sutton's seeds nursery in Reading (1961) (**RNG**). Atlas 2000: no records

West Berks: Crookham Common [56] in 1965, Cothill (**K**) [49] in 1966, Greenham Common [501653] in 1988 (**RNG**). Atlas 2000: [56]

X Conyzigeron huelsenii (Vatke) Rauschert = **Erigeron acer x Conyza canadensis**

Erigeron x huelsenii Vatke

X Conyzigeron huelsenii (Vatke) Holub

Looks rather like *Conyza bonariensis* but with broader leaves, longer hairs and a proportion of aborted capitulae.

East Berks: Wellington College [88] in 1915.

West Berks: in a pit near Oakley House [453996] in 1965.

Conyza bonariensis (L.) Cronquist *Argentine Fleabane* ● th 8 ↑

Erigeron bonariensis L.

Casual on pavements and waste ground near buildings. This is a dull, blue-grey plant with very narrow leaves. A recently arrived, and still very rare alien ruderal. Often a plant-pot weed (as it is in New Zealand and Japan), and moved around with potted plants. Told from *C. sumatrensis* by its much narrower, blue-grey (not yellowish), crisped leaves, and by the purple tips to the bracts of its much fatter, rather onion-shaped, greyish involucre.

Silwood Park: the plant was imported unintentionally as a rare weed of plant pots containing small spruce trees in August 1996; the origin of the spruce plants is not known for certain, but they may have come from Alice Holt in Hampshire. The offspring of these colonists self-seeded into pavement cracks around the Header House, close to where the plant pots had been standing. Still common in plant pots containing *Picea abies* in 1999 and 2000. A plant became rooted in the concrete steps leading up to the PROSAMO greenhouse that grew to enormous size (1.2m tall with 5 stems) and flowered all through the summer and autumn of 2000, dispersing copious seed. It was not felled by frost until mid January 2001. The offspring of this plant continued to fruit throughout a protracted cold spell from December 2001-January 2002. Established in bare soil around the BP Greenhouse. By 3 September 2001 it was thoroughly established by concrete paths and in pavement cracks all around the Header House and on the main greenhouse steps (still there in 2002, despite thorough weeding in 2001). The species did poorly in 2003, with many of the young plants dying in the extreme heat and drought of August 2003; there was just one tiny plant in the sliding door of Greenhouse 6B by 6 September 2003. By 2004 it had come back from the verge of extinction, with a single plant in the same greenhouse door-slide, but 4 plants in asphalt cracks by the Header House Door and 3 in gravel behind CABI on 25 August 2004. A new site was discovered on 16 September 2003 on the Science Park, in the roadside bed opposite the Technology Transfer Centre, where one large, multi-stemmed plant was growing through lavender that had been planted when the bed was refurbished in May 2003. Evidently introduced in the pot with the lavender, and not found amongst rosemary planted nearby at the same time, but not there in August 2004. In a further new site, when a single plant was discovered on the cinder pot standing at The Greenhouses, growing with abundant *Conyza canadensis* on 14 October 2003. There were two plants at the end of the grassy strip between the Jiff Greenhouses and M-Scan on 4 September 2004.

East Berks: first record from Silwood Park in outcast soil from imported plant pots in August 1996. No other records. <1 % (1km²).

West Berks: no records

Conyza bilbaoana J. Remy *Southampton Fleabane*

● th 8 ↑

Conyza floribunda Kunth

Conyza sumatrensis (Retz.) E. Walker var. *floribunda* (Kunth) J. Marshall

Local and still rare in 2004. Recently established, but already locally common in a few places on dry disturbed ground and stonework in some of the towns, particularly in East Berkshire. This is a shiny, dark green plant with hairless involucre bracts. It has the stature of *C. sumatrensis* but with small hairless involucre reminiscent of *C. canadensis*. It has stout, red-streaked, densely long-hispid stems that are often branched from the base (10 flowering stems is not uncommon) bearing round-topped cymes of numerous tiny flower-heads. The leaves are dark, somewhat glossy-green (rather than matt, olive-green in *C. sumatrensis*) and the leaf margins have bent, forward pointing hairs (like *C. sumatrensis* but unlike *C. canadensis* which has straight, spreading hairs on the leaf margin). The marginal teeth towards the base of the leaf are enlarged into forward-pointing lobes, 5-8mm long and 2mm wide. Towards the base of the leaf the under-surface of the midrib bears long, 8-10-segmented transparent hairs. The pale, yellowish-green flower heads are small (4mm long and 3mm wide) and are held in terminal groups of 3-5 on long slender inflorescence branches. The outer bracts are about half the length of the involucre. The achenes have sparse, spiky hairs, especially towards the top. First described from Southampton in 1992. It is odd that this plant, which spread northwards through France so much more quickly than *C. sumatrensis*, and attained higher densities in many places (Thebaud, *Ecology*, 1996) should have crossed the Channel so much later and spread so much less rapidly in Britain.

Silwood Park: a very rare escape from cultivation, now occasional but fluctuating in abundance. It was grown by Cheryl Case in the Header House greenhouse from seed imported from France by Christophe Thebaud in spring 1997 in order to prepare herbarium specimens. One large plant, presumably from escaped seed, grew from a crack in the concrete at the corner of the CABI Quarantine Greenhouse in August 1999. A second plant, much further away, grew on the ruins of the Cocoa Greenhouse and flowered in September 1999. No plants were found anywhere in Silwood in 2000. A large individual was discovered on 29 September 2001 in the cold frame beds at the Greenhouses, growing amongst a dense colony of *C. sumatrensis*. This plant set copious seed before toppling over in early December 2001. There were 2 huge individuals (the largest with 15 flowering stems) amongst abundant *C. canadensis* on the cinder pot standing at the Greenhouses on 30 July 2002, and 3 much smaller individuals in the dry year of August 2003. There was a massive, 10-branched individual, more than 1.5m tall, and one much smaller single-stemmed plant, at the base of the east-facing greenhouse wall on the Pot Standing on 31 August 2004, apparently the only plants in the district. There were 2 plants on the grassy triangle at the Cheapside end of Mill Lane on 5 November 2001, following cable-laying operations, but none in 2002-04.

Ascot: uncommon on 16 September 2003, on bare ground on the demolition site in Sunninghill [939683] where the long-empty houses of Matthews Court had stood until the site was bulldozed in early 2003 and built over in early 2004. No records from 2004.

East Berks: first recorded on 5 November 2000 in Windsor, where it was locally abundant in a grassy strip between the hedge and the road to the car park [971773], by the railway just north of the Riverside Station, overlooking the Home Park Recreation Grounds. Still common at this site in September 2001, but the plants were much smaller because the site had been mown, earlier in the summer. Heavily mown and not spread any further by 2002, and locally extinct by September 2003 (not there in 2004). A single individual in the gravel of the Hospital car park at the Royal Military Academy at Sandhurst on 1 August 2002. Locally frequent on

stonework by the R. Thames in Windsor and on the stone piers of the Thames bridge (c.20 large plants), where it crosses from downtown Windsor into Eton on 6 September 2003 (also present on the v.c.24 side of the bridge), still there in 2004. On sunny waste ground between the railway and Tesco's Superstore at Kings Meadow in Reading [719738] on 11 October 2003, but not in September 2004. Uncommon amongst abundant *C. sumatrensis* and *C. canadensis* on derelict industrial land off Howarth Road near the railway in south-east Maidenhead [8980] on 11 September 2004. Local and very uncommon on waste ground by the railway in the Carnival carpark at Wokingham [807683] on 18 September 2004. Much the commonest *Conyza* in derelict industrial premises on Western Road, Bracknell [8589], opposite Cable and Wireless in September 2004. <1 % (1km²).

West Berks: first recorded as locally dominant at the base of the car park wall at Newbury Station [472667] on 29 September 2001. It looked like a corymbose version of *C. canadensis*, with the same hairless involucre, but much commoner here than *C. canadensis*. Still there in September 2002, but less abundant. The area had been allowed to become overgrown by 3 September 2004, and *C. bilbaoana* was much reduced through competition from *Solidago canadensis*, *Urtica*, *Artemisia*, *Ballota*, *Plantago lanceolata* and *Senecio squalidus*. There was no *C. sumatrensis* in the vicinity, and *C. canadensis* was restricted to the trackbed of the railway on the quiet platform on the opposite side of the road. Many of the Newbury plants lacked any red streaking at the base of the stem, and most plants were not branched from the base; all, however, had hairless involucre and leaves with teeth extended into small, forward-pointing lobes. This is still its only West Berkshire location in 2004.

Olearia solandri Hook f.

• n 6

An uncommon golden-leaved shrub with needle-like leaves, that looks more like Ericaceae than Asteraceae. Very rarely naturalised in Cornwall, and self-sown in Silwood Park.

Silwood Park: a single plant self-sown in brick pavements below the wall by the eastern entrance to the Centre for Population Biology. The plant was 3 years old and 30cm tall when it was first noticed in February 2003. The likely parent plant was c.15m away, in the shrub bed on the south-facing front of North Block, where it was planted in 1988. The plant was killed on 29 August 2003, uprooted by vandals and cast aside when it was 45cm tall.

Tanacetum balsamita L. *Costmary*

• h 7

Balsamita major Desf.

Chrysanthemum balsamita (L.) Baillon, non L.

An uncommon herb-garden plant, very rare as an outcast and never found self-seeded in Berkshire.

East Berks: Woodley allotments in 1998. <1% (1km²).

Artemisia dracunculus L. *Tarragon*

• h 7

Uncommon as a herb-garden plant, and rare as an outcast on tips.

East Berks: Shinfield, Three Mile Cross, Camberley. <1% (1km²).

Artemisia verlotiorum Lamotte *Chinese Mugwort*

• hp 10

An interesting example of an alien invasion by range extension across Europe. Thoroughly, but very locally naturalised on roadsides and waste ground. Like *A. vulgaris* but rhizomatous (stand-forming), with narrow stem pith is narrow (the white portion of the pith makes up 30% (not 80%) of the diameter). Told by the long, finger-like, untoothed lobes of its stem leaves, and by its lime-green (not blue-green) colour.

East Berks: very local at Thornhill in 1998 but gone by 2000. Locally dominant on waste ground near Farley Moor Lake on Bracknell Industrial Estate [8569] in November 2002. <1% (1km²). Atlas 2000: [86]

West Berks: Didcot railway sidings [524906] in 1966 and 1988. The Great Western Centre has been tidied up and most of the good aliens that used to grow there had been lost by 2000. Atlas 2000: [59]

Artemisia absinthium L. *Wormwood*

○ h 7 ↓

Dry hedge-banks, railway banks and waste ground, in very small quantity. Often sporadic.

East Berks: on the high bank south of Maidenhead Station with other casuals. On the borders of Messrs. Sutton's trial farm. Reading (1931-47), Woodley (1935), Earley (1950), Heywood Park. <1% (1km²). Atlas 2000: no records

West Berks: commonest in the Northern Loop and absent from most of the interior. Inkpen [36], Newbury tip [46], Harwell [48], Cothill, Hitchcopse pit, Grove tip, Kingston Bagpuize House and Frilford [49], Bessels Leigh and Dry Sandford [40], Sutton Courtenay [59], Kennington and South Hinksey [50], Theale [67] (RNG) in 1946. Atlas 2000: [49]

Artemisia spp. as garden outcasts and escapes

This is a difficult group of aliens because they are so seldom in flower at the time they are found, and this makes them impossible to key out in the normal way. All of them have more or less silver leaves, but there is tremendous variation in leaf shape. Two taxa have entire upper leaves: the pot herb *A. dracunculus* has green leaves, and the ground cover perennial *A. ludoviciana* has silver leaves. Of the taxa with divided leaves, one is a carpeting, ground-cover perennial (*A. stelleriana*) and the rest are more or less upright. Of the upright ones, most have silvery-white leaves but *A. abrotanum* is green (albeit sage-green). The most frequent (and hardy) of the filigree-leaved silver plants is *A. 'Powis Castle'*, the one with the finest leaves is *A. alba 'Canescens'*, and the most woody is *A. abrotanum*. For flowering specimens, there is a key to 53 garden taxa of *Artemisia* on p. 243 of Vol 1 of the RHS Dictionary of Gardening.

Artemisia stelleriana Besser *Hoary Mugwort*

● h 7

Known to gardeners as *Dusty Miller*, it produces a dense carpet of broad, deeply fingered, grey-white leaves that are more reliably hardy than *Senecio cineraria*. Occasional garden plant grown at the front of the herbaceous border or to soften the edges of paths. The underleaves are more densely white-woolly (white-lanate) than in *A. ludoviciana* (white-tomentose, undivided leaves).

Silwood Park: locally abundant by The Greenhouses on waste ground since 1979.

East Berks: Three Mile Cross in 1998. <1% (1km²). Atlas 2000: [76], [87], [96]

West Berks: naturalized in the grounds of the Old Rectory at Burghfield [6668] in 2004.

Artemisia ludoviciana Nutt. *Western Mugwort*

● h 7

A rhizomatous clump forming perennial with willow-like, downy silvery white entire leaves (not to be confused with *A. stelleriana*, which has divided leaves; see above).

East Berks: Binfield in 1999. <1% (1km²). Atlas 2000: [87]

Artemisia pontica L. *Roman Wormwood*

● h 7

Reminiscent of *A. maritima* or a smaller version of *A. abrotanum*, but this is a rapid, dense, invasive colonizer, bearing feathery sage-green foliage in slender, erect, narrow sprays. Rare as a garden escape.

East Berks: Reading in 1989. <1% (1km²).

Artemisia 'Powis Castle'

● n 7

This is the *A. arborescens* of gardens, and has the most finely divided leaves of the silver-leaved shrubby mugworts. Common in gardens, but rare as an outcast.

East Berks: Maidenhead in 1997. <1% (1km²).

West Berks: Newbury in 1998 and 2000.

Artemisia abrotanum L. *Southernwood*

● n 7

A shrubby garden plant with very feathery sage-green (i.e. not silvery), strongly aromatic foliage. The stems are woody right to the top, and the plant seldom flowers.

East Berks: Windsor on waste ground by the station in 1996. <1% (1km²).

West Berks: Rockley Copse pit [451021] in 1965 and in an abandoned garden at Hyde End Mill [5663] in 1987. On waste ground in Botley [4906] in October 2002.

Artemisia biennis Willd. *Slender Mugwort*

● h 7 †

West Berks: Abingdon [49] (OXF) and Moulsoford [58] (OXF) both in 1925 by different collectors, suggesting that a batch of contaminated seed was imported in 1923 or 1924.

Santolina chamaecyparissus L. *Lavender-cotton*

● n 7

Commonly grown with other grey-foliaged plants in Mediterranean beds; occasionally found as an outcast on waste ground and rarely as self-sown plants in paving cracks and on walls.

Silwood Park: much planted on the Science Park, and self-sown on brick paths in 1995. Also at Ashurst Church, and Drive Lawns.

East Berks: waste ground in Earley [7571] and by the R. Thames in Maidenhead [9081] in July 2002. Outcast in Cookham Dean [8785] in 2003. 3% (1km²).

West Berks: suburban roadside in Cumnor [40] in 1952 (gone by 1980). On bridleway banks between Blewbury and Upper Chance Farm [5284] in 1978. On waste ground in Faringdon [2895] in July 2002.

Chamaemelum nobile (L.) All. *Chamomile*
Anthemis nobilis L.

h 6 ↓

In the short turf of heathy commons and in lawns; local and rare in south-east Berkshire. Scarce in Britain in herb rich closely grazed moderately acidic, unfertilized lowland grassland and sports grounds on dry sandy or gleyed soils that are baked hard in summer; often found with *Plantago coronopus*. The main cause of its decline is thought to be cessation of grazing on heaths. An aromatic perennial with finely divided leaves told from the other similar genera like *Matricaria* with white rays and yellow disc florets by the presence of receptacular scales, and from *Anthemis* by the small pouch at the base of the corolla which hides the top of the ovary in one plane.

Ascot: no recent records

East Berks: Wellington College (**RNG**) in 1915, Virginia Water, Knowl Hill, Windsor, Earley, Hurst, Riseley Common, Bracknell, Stubbing's Heath, plentiful and luxuriant near the brickyards at Twyford. Much reduced by Bowen's time. Fifield (1954), Coleman's Moor (**RNG**) in 1956. Formerly scattered throughout, but extinct at most of its stations. Leighton Park (1982) and South Hill Park [8766] in 1985. It has the distribution of an alien these days. 1% (1km²). Atlas 2000: [77], [86]

West Berks: very local and rare. Grazeley, Mortimer (**RNG**) and Padworth Common [66]. Atlas 2000: [46]

Anthemis punctata subsp. **cupaniana** (Tod. ex Nyman) R. Fern.
Anthemis cupaniana Tod. ex Nyman

● hp 5

A common rockery and wall perennial with yellow-eyed, white daisy flowers. Occasionally escaping on stony waste ground and ruined walls.

Ascot: on pavements in Sunninghill in 1997.

East Berks: Three Mile Cross, Binfield Park, Warren Row, several sites in Maidenhead, Bray Court. 1% (1km²). Atlas 2000: [76], [87], [88], [96], [97], [98]

West Berks: on bare waste ground and pavements in Abingdon [4997] in July 2002. Atlas 2000: [49], [68]

Anthemis arvensis L. *Corn Chamomile*

○ th 6 ↓

Dry arable fields, locally frequent on the chalk. The leaves are sweet scented when crushed. The receptacular scales have a single slender tip and the achenes are strongly ribbed. It might be confused with *Matricaria recutita* or *Tripleurospermum inodorum* but these have no receptacular scales, and much finer, greener leaf segments.

NVC: OV 3

Silwood Park: in the student's allotments in Silwood Bottom in June 2003, apparently sown with other corn field weeds like *Centaurea cyanus* and *Agrostemma githago*.

Ascot: near Ascot Racecourse (Druce), but no recent records and no likely habitat.

East Berks: Sonning, Maidenhead, Bray, Windsor, Hurley, Bisham, Wargrave, Twyford, Finchampstead. Occasional in the arable areas, but absent from the Surrey border on the east and the Hampshire border on the south. Recently at Brooklands, Yates Farm, Waltham St Lawrence, and grown in Lily Hill Park as part of an "old arable weeds" demonstration in 1998. 1% (1km²). Atlas 2000: [77], [86], [87], [88]

West Berks: frequent in the Thames valley, occasional on the chalk and rare in the south. By the railway bridge between Uffington and Watchfield [28], Camden Farm, Radcot, fields by the Thames [29], Devil's Punchbowl [38], Buckland and Hyde Farm [39], Frilford Heath [447981]. There was a roadside display of rare arable weeds, presumably planted, at Upper Lambourn [3180] in July 2003. Growing with *Papaver somniferum* cultivars on dumped soil in Chilton railway cutting [4985] on 12 June 2004. Atlas 2000: all except [37], [47], [58], [59], [50], [68], [69]

Anthemis cotula L. *Stinking Chamomile*

○ th 7 ↓

Cultivated fields and waste places, "generally distributed and too abundant in many of our cornfields. The plant is detested by workers since it often produces annoying blisters" (Druce). By Bowen's time the plant was much less common "locally frequent in arable fields on the chalk; rare or absent in east Berkshire". Now it is uncommon everywhere. The receptacular scales are restricted

to the central (upper) part of the receptacle and are linear subulate (not lanceolate). The achenes are tuberculate on the ribs and the leaves are foul smelling when crushed.

NVC: OV 1,8,10,15,19,33

East Berks: scattered throughout, but absent to the east of 90. Recently only from Hurley and the M4/A33 Interchange [709702] in August 1999. <1% (1km²). Atlas 2000: [76], [77], [86], [88]

West Berks: occasional throughout the Kennet valley and on the chalk (south of 85), but rare to the north of 85 save for populations in the Northern Loop and at Kingston Down and Knighton Barn [28], Badbury and Eaton Hastings [29]. Atlas 2000: all except [37], [49], [50], [66], [68], [69]

Anthemis tinctoria L. *Yellow Chamomile*

• h 7 ↓

East Berks: casual alien, very rare in waste places; by the railway near Maidenhead (1897). Not seen by Bowen. These days an occasional garden escape, as at Spencer's Wood, Three Mile Cross, Woodley, Twyford. 1% (1km²). Atlas 2000: [76], [77]

West Berks: on the railway at Didcot [59] in 1893, at Boars Hill [40] in 1903 (**OXF**). on waste ground at Kennington (**RNG**) [519033] in 1975-77. Atlas 2000: [50]

X Tripleurothemis maleolens (P. Fourn.) Stace = **A. cotula** x **T. inodorum**

X *Anthemimatricaria maleolens* P. Fourn.

X *Anthemimatricaria celakovskiyi* Geisenh. ex Domin, nom. inval.

A local speciality with intermediate rib development on the achenes and irregular presence of *Anthemis*-like receptacular scales. One of only 2 British records.

West Berks: Collected by Q.O.N. Kay at Moulsoford [5983] in 1966 (Stace, 1975).

Chrysanthemum coronarium L. *Crown Daisy*

• th 6

West Berks: very local and rare. In allotments on the Berkshire bank of the Thames at Osney in 1999. Atlas 2000: [50]

Cotula squalida (Hook.f.) Hook.f. *Leptinella*

• h 7 †

Leptinella squalida J.D. Hook.

East Berks: not in Druce. Lawn weed at Wellington College from 1961-63 (**RNG**). In a lawn at Leighton Park [7371] in 1968.

Senecio x albescens Burb. & Colgan = **S. cineraria** x **S. jacobaea**

East Berks: Carol Hora's front garden in Eastern Avenue, Reading in 1996.

West Berks: on a roadside bank in Hungerford Newtown [3571] in 1980 (det. H.J.M. Bowen).

Senecio inaequidens DC. *Narrow-leaved Ragwort*

• hs 7

Senecio lautus auct., non Sol. ex Willd.

There has been rapid range expansion of this South African plant in Germany and France since 1980, and it has become a serious pest of pastures in South America. It may well spread in Britain in due course, but it has not yet done so (to 2004). It is known by its very narrow, dark green, long, willow-like leaves which are sparsely toothed rather than lobed, and by its broad, rather delicate flowerheads with long golden ray florets. In leaf it looks like a green version of *Conyza bonariensis*, and in flower it could be mistaken for a narrow-leaved *Senecio squalidus*.

Silwood Park: about 400 individuals were planted out by Christoph Schreiber in June 2002 in new experiments in Nursery Field and at the far end of Pound Hill Field, beyond the Cultivation Timing Experiment. There was plus-and-minus rabbit fencing, and plus-and-minus soil cultivation, crossed with insecticide and molluscicide application. He was interested in working out which of the native herbivores (rabbits, cinnabar moth and flea beetles) might prevent the establishment and spread of this potentially invasive species. By 1 October 2002 the survivors of these planted individuals were flowering freely on the fenced, cultivated plots, but had gone from grazed uncultivated plots. Evidently, freedom from competition was more important than protection from rabbit grazing, because there were a few flowering individuals on the cultivated grazed plots; many of these were flowering on regrowth shoots, after grazing by rabbits. It appears that Cinnabar Moth can not develop to pupation if force-fed on this plant, and the caterpillars reject the plant in choice tests when offered *Senecio jacobaea* (in the Cinnabar Moth defoliation year of 2004 the plants in Pound Hill were unscathed). Adult flea beetles, *Longitarsus jacobaeae*, do eat the leaves, and it will be interesting to discover whether flea beetle larvae can undergo complete development on *S. inaequidens*; if so, feeding by this specialist insect herbivore might prove an important barrier to invasion of this alien plant. An interesting difference from Ragwort is that the stem does not die down to the base after flowering, but remains leafy in its lower half throughout the winter becoming progressively woodier as the years go by. In cases where the old stem is cut back by frost, then new stems shoot up from the base in April. Many plants survived the cold and (relatively) snowy winter of 2002-03 on both fenced and unfenced plots (but they were much smaller on the grazed plots), refoliating

from the highest parts of last year's stem to survive the cold. Most of the originally established plants were still flowering inside the rabbit fences at Pound Hill and Nursery Field in December 2003; there had been little if any mortality during the second year, but no recruitment from seed either. Several of the original plants were still alive in May 2004 inside the rabbit fences at Pound Hill and five on a grazed plot (still flowering in November 2004), but only one survived in the corner of the rabbit enclosure in Nursery Field (this plant had 3 woody, much-branched stems). Maria Alvarez set up new experiments including cunning fences that excluded deer but allowed access to rabbits (they were made of broad-gauge pig wire), excluded rabbits but not deer (1m high 2cm chicken mesh; the roe deer leap over these with distain), both rabbits and deer (2m high chicken wire) as well as grazed plots; she introduced *S. inaequidens* to these new plots with and without cultivation in Heronsbrook Meadow, Nursery Field and Ashurst Orchard in summer 2003. In pots on the Pot Standing and in the Cold Frames at the Greenhouses, flowering from May - November 2004.

Ascot: no other records to July 2004.

East Berks: as an escape from the Botanic Gardens in Whiteknights Park [7371] in 1988 (**RNG**).

West Berks: at Abingdon [49] in 1917 (**OXF**). Again at Abingdon [4896], flowering in December 1999 (**OXF**).

Senecio fluviatilis Wallr. *Broad-leaved Ragwort*
Senecio sarracenicus sensu L.(1754) et auct., non L.(1753)

• hel 7

This is the big, entire leaved ragwort that is quite commonly naturalized in damp grass in Scotland and Northern England. It is uncommon nowadays, presumably because it is less often grown as a garden plant and hence less often thrown out.

West Berks: in a field margin near Lodge Hill, Abingdon [5099] in 1980 (**OXF**).

Senecio aquaticus Hill *Marsh Ragwort*
Senecio erraticus sensu Drabble et auct., non Bertol.

hs 7 ↓

Marshes, water meadows, damp roadsides; rather common in low-lying districts, but absent from the chalk and very acid soils in south-east Berkshire. The dramatic decline in distribution and abundance has been caused by drainage of wet meadows, re-seeding and fertilizing.

NVC: M 23,24,27; MG 9,10

Ascot: no records

East Berks: occasional in the western reaches of the Thames valley from Sonning to Remenham, but rare or absent downstream of Hurley. Rare in the Blackwater valley as at Farley Hill [7564] and in the region from Bracknell to Waltham. Not found to the east of 90. 1% (1km²). Atlas 2000: all except [96], [97]

West Berks: occasional in the Thames and Kennet valleys but absent from the interior north of 75. Shrivenham [28], Grafton Lock [29], Chimney Meadow and Buckland Marsh [30], Lockinge Park lake [48], Marcham salt spring and Otney pasture [49], Lashford Lane [40], Kennington [50], Cholsey [68]. Atlas 2000: all except [38], [39], [69]

Senecio x baxteri Druce = **S. squalidus x S. vulgaris**

Highly sterile triploid which is intermediate in leaf shape and capitulum, but possibly over-recorded for radiate forms of *S. vulgaris*. The fertile tetraploid species *Senecio eboracensis* may arise as a result of this same cross (Lowe and Abbott (2003) *Watsonia* 24,375). Druce used the illegitimate name *Senecio advena* to describe any puzzling hybrids he found; there is a **BM** specimen from Didcot in 1929.

West Berks: Grandpont (**OXF**) [50] in 1884, Didcot [49] in 1897 and Farmoor [40] in 1964.

Senecio x subnebrodensis Simonk. = **S. squalidus x S. viscosus**
Senecio x londinensis Lousley

Highly sterile and intermediate in leaf-shape, pubescence and shape of the capitulum.

East Berks: on the railway to the east of Reading Station in 1969.

West Berks: by the railway at South Hinksey [50] in 1950, Barrow Hills [59] in 1963, Didcot [59] in 1966. By the railway at Didcot [5290] in 1995.

Senecio vulgaris var. **hibernicus** Syme

th 1

Like var. *vulgaris* and often growing with it, but capitula with conspicuous ray florets (ligulate), often curled back into rolls. This taxon may have arisen through introgression from *S. squalidus*.

Silwood: probably a greenhouse escape from experimental work carried out by Christophe Thebaud in 1994. Persisted for 3 years on the gravel pot stand between the Header House and the greenhouse. The last 2 plants were seen on 5 May 1997. Site destroyed by building work for new Jiff Greenhouses in May 2000.

East Berks: in dry ground at the Military Academy Sandhurst on 21 April 2002.

Senecio vernalis Waldst. & Kit. *Eastern Groundsel*

• th 7

Increasing rapidly in continental Europe, this species is still rare with us. Told from *S. squalidus* by its webby-pubescent (not glabrous) leaves with their short lateral lobes (the leaves are often very like those of *S. vulgaris*). The ray florets are the same size (8-10mm) as in *S. squalidus*.

East Berks: no records

West Berks: on Frilford Heath [4496] in May 1996 (**OXF**). Not seen since.

Tephrosieris integrifolia (L.) Holub *Field Fleawort*

hs 6 ↓

Othonna integrifolia L.

Senecio integrifolius (L.) Clairv.

Tephrosieris integrifolia subsp. **integrifolia**

Senecio campestris (Retz.) DC.

One of the real rarities of our Berkshire chalk grassland. *Tephrosieris* is told from *Senecio* by its involucre bracts. Both have a single row of phyllaries, but *Senecio* has supplementary smaller bracts at the bottom of the capitulum, and these are absent in *Tephrosieris*. Field fleawort is an erect, densely pubescent, short-lived rosette forming species that flowers in June and July. It has leaves that look more like Houndstongue than Ragwort or Groundsel. Typical ancient grassland associates include *Asperula cynanchica*, *Helianthemum nummularium*, *Helictotrichon pratense*, *Hippocrepis comosa*, *Koeleria macrantha* and *Polygala calcarea*. Found in warm dry sites on south-facing slopes in chalk grassland, often associated with the banks of ancient trackways or earthworks. Very variable in numbers from year to year, reflecting the vagaries of seedling recruitment. It has declined as a result of reduced sheep grazing, grassland fertilisation, re-seeding and scrub incursion.

NVC: CG 2,3

East Berks: no records from any of our chalk grasslands.

West Berks: first record from Streatley (Lightfoot, 1780). Strictly confined to the chalk, north of 80 and south of 90; probably extinct on the Hampshire border chalk. Kingstone Down [2882] and Whitehorse Hill (100 plants in 1977 but 500 in 1978, and 100 in 2000) [297863], Seven Barrows [3282], possibly extinct at Hungerford Down [36], East Hendred Down [48], Grims Dyke at Chilton [468848], Aston Upthorpe Down (10 plants in 1983 but not seen recently, and the site now severely overgrazed by rabbits) [5483], Oven Bottom, The Fair Mile, Streatley Hill (**RNG**) and Moulsoford Downs [58]. Atlas 2000: [28], [38], [48], [58]

Sinacalia tangutica (Maxim.) B. Nord. *Chinese Ragwort*

• hs 6

Senecio tanguticus Maxim.

West Berks: by the R. Kennet in Newbury [473672] from 1942-59. Near Newbury bus station [4767] in 1956 (det. D. McClintock) (**RNG**).

Ligularia dentata (A. Gray) H. Hara *Leopardplant*

• hs 6 ↓

Erythrochaete dentata A. Gray

Senecio clivorum (Maxim.) Maxim.

Ligularia clivorum Maxim.

East Berks: at the lakeside near Foxhill in Whiteknights Park in 1965.

West Berks: at Steventon [4691] and Kingston Bagpuize [4098] in July 2003.

Petasites japonicus (Siebold and Zucc.) Maxim. *Giant Butterbur*

• g 2

Nardosmia japonica Siebold and Zucc.

Petasites japonicus (Siebold and Zucc.) Maxim. subsp. *giganteus* Kitam.

Big creamy white and greenish flowers protruding self-consciously from the wintry ground. The bracts are broad (> 1cm) and pale lime green. The flowers are followed by enormous, rhubarb-like leaves 80cm (sometimes reaching 1.5m) in diameter.

Ascot: very local and rare. In the western verge of the Windsor road, north of the Peanut Roundabout [935724], growing with *Smyrniium olusatrum*, since 1995. The patch is expanding steadily, and by 16 March 2003 it covered 16m of verge and ditch, with 80 flower stems.

East Berks: not in Druce or Bowen. <1 % (1km²). Atlas 2000: [97]

West Berks: on the stream bank at Welford Park [47] in 1959 (**LAN**). Locally dominant at Old Hungerford fishery [318680] in 1966 and Sandford [4764] in 1972. In wild gardens at Stanford Dingley [576715] in 1980 and Padworth College [6265] in 1987. By the pond in the Old Rectory at Burghfield in April 2001 [66], and at Sutton Courtenay Manor [59]. Locally abundant in the roadside verge opposite the ornamental pond at West Woodhay House [386633] and in Letcombe Regis [3886] in 2002-04. Very abundant on the south-western shores of the lake in Benham Park [436674] in 2002. Atlas 2000: [46], [47]

Xanthium strumarium L. *Rough Cocklebur* ● th 7 †

East Berks: Maidenhead in 1918.

West Berks: Abingdon [49] in 1918.

Xanthium spinosum L. *Spiny Cocklebur* ● th 7

Ascot: very local and rare. A single individual on 16 September 2003, on bare ground on the demolition site in Sunninghill [939683] where the long-empty houses of Matthews Court had stood until the site was bulldozed in early 2003. The site was built over in early 2004, destroying the habitat.

East Berks: Waltham in 1898.

West Berks: Abingdon (**OXF**) [49] in 1917 and Wytham [40] in 1918.

Guizotia abyssinica (L. f.) Cass. *Niger* ● th 7

East Berks: not in Druce. Casual on rubbish tips; Reading (**OXF**) in 1920, Smallmead tip, Reading tip (1961-62), Woodley tip [777745] in 1969-71, in a garden bed at Whiteknights Park (1987). In disturbed topsoil at the roadworks near the M4/A33 interchange in 1999. <1% (1km²). Atlas 2000: [76], [77]

West Berks: Newbury tip [46] from 1959-68 (**OXF**), Thatcham tip in 1961 [56], Didcot tip in 1961 [59], South Hinksey tip in 1965 [50]. Atlas 2000: no records

Sigesbeckia serrata DC. *Western St Paul's-wort* ● th 7

A rare and sporadic grain alien.

East Berks: very rare; 3 small plants on roadside bank adjacent to the north-west extremity of Reading Gate car park [709700] on 31 October 1999. Found by Tony Mundell and Dorothy Brookman (det. Eric Clement).

Bidens cernua L. *Nodding Bur-marigold* th 7 ↓

Pond-sides, stream-sides and wet places, in small quantity. Told from *B. tripartita* by the leaves tapered but not petiolate, strongly serrate but unlobed. Declining because of pond filling and drainage.

Ascot: no records

East Berks: Wellington College, Remenham and Aston, Sonning meadows, Arborfield, Coleman's Moor, Blackwater, Sandhurst, between Loddon Bridge and Wokingham, Winkfield, Holyport, Easthampstead, Riseley, Finchampstead, Thatcher's Ford, Hurst Green, Wokingham, Earley, Wargrave, Ruscombe, Windsor, Shottesbrooke. Local, and mostly around Reading in Druce's time. Bowen knew the plant from Riseley, Leighton Park, Whiteknights Park, Finchampstead, Coleman's Moor, Wellington College [8364], Knowl Hill, Bracknell, Winkfield, Virginia Water, Windsor Great Park, Sindlesham [758697], Cookham, Cock Marsh [8987]. Commonest to the south of Reading, and rare to the east of 90 or north of 80. Recently it is recorded from Dinton Pastures, Moor Green Lakes nature reserve [8062] in 2001, Cock Marsh, Cookham, Widbrook Common. 1% (1km²). Atlas 2000: [76], [77], [86], [87], [88]

West Berks: a distinctly southern distribution, very local in [66] to the south of Reading, and rare in the Kennet valley, but absent from the whole length of the Thames valley from Lechlade [29] to Reading [67], and from the interior. Hungerford and Inkpen [36], Irish Hill [46], gravel pits at Aldermaston (**LAN**) and Brimpton [56], Sulhamstead, Stratfield Mortimer and Grazeley [66], Theale (**RNG**) and Tilehurst [67]. Atlas 2000: [36], [46], [56], [66], [67]

Bidens ferulifolia (Jacq.) DC ● th 6

A popular hanging-basket plant, rarely self-sown on pavements, typically near pubs.

Ascot: on Upper Village Road in Sunninghill, in cracks in the tarmac of the carpark of the council flats (1992-2004).

East Berks: rare on the pavement on the main street of Cookham in September 2002, probably the village most heavily bedecked with hanging baskets in all of Berkshire. <1% (1km²).

West Berks: on waste ground in Shrivenham [2388] in September 2004.

Gaillardia x grandiflora hort. ex Van Houtte *Blanketflower* • th 6

Silwood Park: long persistent in open ground by The Greenhouses (1971-2004).

East Berks: on the cinder-bed of an old railway at Salisbury Road, Reading [703741] from 1973-80 (**OXF**). On waste ground at Earley [7571] in August 2002. <1% (1km²).

Helenium autumnale L. *Sneezeweed* • hs 7

Ascot: next to the Chinese take-away on Upper Village Road in Sunninghill in 1971.

East Berks: a rare garden outcast in Langley Common in 1998. Locally abundant on waste ground in Swallowfield [7264] in August 2002. <1% (1km²).

Cynara cardunculus L. *Globe Artichoke* • h 6
Cynara scolymus L.

Silwood Park: a remnant of cultivation on the old student allotments in Ashurst Four Acre field and in Silwood Bottom.

East Berks: recently at Barkham Ride, West Whitley, Bulmershe Court, Woodley, Twyford, Wargrave, Altmere. Massive plants, more than 2m tall, on abandoned allotments at Bulmershe in July 2002. 1% (1km²). Atlas 2000: [76], [77], [87]

West Berks: on allotments throughout, as at Botley, Cow Mead, Steventon and Grandpont. Waste ground at Kingston Bagpuize [4098] in July 2003. Atlas 2000: [28], [40], [50]

Ageratum houstonianum Mill. *Flossflower* • th 6

This the common blue “powder puff” annual used for edging borders and in municipal bedding schemes. It is occasionally found on waste ground and self-sown in cracks in paving. Another species that is very common as a roadside alien in warm temperate parts of the world (see also *Cosmos bipinnatus* and *Verbena bonariensis*) which might increase with climate warming.

Ascot: Sunninghill Village on pavements (1998-2004).

East Berks: casual on Reading tip (1961). Winnersh, Twyford, College Town, Owlsmoor, Old Malt House, Shottesbrooke. 1% (1km²). Atlas 2000: [77], [86], [87], [96]

West Berks: Atlas 2000: no records, but doubtless under-recorded.

MONOCOTYLEDONS

BUTOMACEAE

Butomus umbellatus L. *Flowering-rush* hel 7 ↓

Margins of rivers and ponds, in small quantity. Local and decreasing. “Leaves of this most elegant aquatic are intermediate between *Sparganium* and *Glyceria*; lighter green and shorter and narrower than *Sparganium*, more yellowish green than *Glyceria maxima*”(Druce). Often planted these days in pond reconstruction projects.

NVC: S 14

Ascot: no records

East Berks: Loddon, Cookham Down, Quarry Wood, Wargrave, Hurley, Sonning meadows, Albert Bridge Windsor, Bisham, Bray, Arborfield. Wargrave, Cookham Moor. Scattered and rare to the north and west of a line from Maidenhead to Arborfield. Commonest in and by the R. Thames, but absent from the area along the Surrey border in the east and the Hampshire border in the south. Recently at Wargrave, Kennet Mouth, Hurst, Knowl Hill, Temple, Cock Marsh, Widbrook Common. In the new village pond (planted c.2000) south of Knowl Hill [825793] in July 2003. 1% (1km²). Atlas 2000: all except [78], [96]

West Berks: commonest to the south-west of Reading in [66] and [67], and in the Thames from Wytham down to Pangbourne, but extinct in many of its former stations. By the railway crossing of the R. Cole west of Bourton [215872], by the R. Cole at Coleshill [232938], Wytham ditches [40], Woolhampton [56], Streatley [58], Thrupp, Clifton Hampden and Shillingford [59], Sandford and

Kennington Pool [50], Aldermaston Station [66], Burghfield Lock, Calcot, Theale, Pangbourne and Sulham [67]. Atlas 2000: [28], [29], [39], [46], [40], [56], [58], [59], [66], [67], [68]

ALISMATACEAE

Sagittaria graminea Michaux *Grass-leaved Arrowhead* • hyd 7
Sagittaria platyphylla (Engelm.) J.G. Smith

A garden plant with small flowers (1.2cm dia.) in 5-7 whorls; female flowers distinctly pedicellate with sepals reflexed. A very rare outcast.

East Berks: by an old gravel pit at Trilakes near Sandhurst (RNG) [829614] in its only British station. First recorded in 1975. <1% (1km²).

HYDROCHARITACEAE

Baldellia ranunculoides (L.) Parl. *Lesser Water-plantain* hel 5 †
Echinodorus ranunculoides
Alisma ranunculoides L.

On mud in ditches and by ponds. Long extinct.
 NVC: A 22

East Berks: very rare. Hurst Green (BM) in 1873, Grazeley (1915).

West Berks: Newbury [46] in 1809, Cothill fen [49] from 1897 to 1978.

Alisma lanceolatum With. *Narrow-leaved Water-plantain* hyd 6 ↓

Sides of rivers, streams, ponds, and canals, ditches and wet places on nutrient-rich mud; scattered throughout. Told from *A. plantago-aquatica* by its leaves which are linear with cuneate bases (not elliptic with subcordate or rounded bases). Close inspection will show that the styles arise in the upper half of the fruit (not half way up).

Ascot: no records

East Berks: between Wokingham and Sandford Mill, Hurst, Winkfield, Ambarrow, Clewer, Bracknell, Windsor Great Park. Reading, Riseley, Winkfield. Grazeley, on the Surrey side of Virginia Water. Found only to the south of 75, and extinct at most of its former sites. Recently at Coley, Stanlake Park, Waltham St Lawrence [835766], East Maidenhead. < 1% (1km²). Atlas 2000: [76], [77], [87], [97]

West Berks: scattered in the north, and also to the south of Reading, but absent over most of the area. By the R. Cole [28], Letcombe Bassett [38], Pucketty Farm [39], Grove [49], Longworth [39], Appleton, east of Whitley Copse (OXF) in 1965 and Wytham meads [40], Heath End [583629], South Hinksey [50], Burghfield (RDG) [67] in 1919. Atlas 2000: [28], [38], [39], [46], [49], [40], [56], [59], [50], [66], [67]

Damasonium alisma Mill. *Starfruit* hyd 6 †
Alisma damasonium L.

Extinct. Formerly on margins of acid ponds in still or stagnant water on the London Clay.

East Berks: native on Winkfield Plain [9273] in 1800 and Bracknell [8769] in 1834. "Many of the ponds are too much visited by geese to allow much vegetation. At Bracknell, the large pond shown on the Ordnance Map, is now drained. I still have hopes of finding this plant in Berkshire" (Druce). Long extinct according to Bowen.

West Berks: Southcote [6971] in 1809. There are plans to introduce the plant to the ponds newly created (1999) at Greenham Common [56].

Hydrocharis morsus-ranae L. *Frogbit* hyd 7 ↓

Ditches, ponds, slow stagnant streams near the R. Thames; "locally common" according to Druce, but "very local and decreasing" by Bowen's time. Now rare, and extinct at many of its former stations.

NVC: A 1,3,11; S 8,14,16

Ascot: no records

East Berks: Sonning, Cock Marsh at the foot of Winter Hill, Wargrave, Windsor (**E**) in 1897, Windsor Great Park, Hennerton [7880], Remenham, Hurley, Marlow, in the moat at Whistley Park, Bulmarsh, Twyford, Bisham, Bray, Ruscombe, Old Windsor. Henley reach (1951), Strand Castle mere (1959). Formerly along the whole length of the Thames from Reading to Old Windsor, but now extinct at all but a handful of locations. < 1 % (1km²). Atlas 2000: [77], [78], [88]

West Berks: formerly in the Thames from Wytham to Abingdon and from Pangbourne to Reading, but extinct at most of its former stations. Abingdon [49], Wytham [40], Moulsoford [58], Radley and Thrupp [59], South Hinksey and Kennington [50], in ditches on Littlejohns Farm (**LAN**) in 1957, Pangbourne and Southcote [67]. Last recorded at Littlejohns Farm [6974] in 1982 (**RNG**). It is recorded from the Oxfordshire bank of the Thames at [4808], [5006], [5007] and [5008]. Atlas 2000: [49], [59], [67]

Stratiotes aloides L. *Water-soldier*

• hyd 6 ↓

Small streams, ditches and ornamental lakes, very local and rare.

NVC: A 11

Ascot: no records

East Berks: Whiteknights Park lake, probably planted (1964). Old brickpits at Pinkneys Green [862830] in 1984. Recently at Dinton Pastures, Pine Wood. < 1 % (1km²). Atlas 2000: [77], [88]

West Berks: in a ditch opposite Nuneham Park [59] in 1860 (**OXF**), Aldermaston Park [66] in 1897, Abingdon [49] in 1899 (**OXF**) and 1955, planted at Jarn Mound (1933), Thrupp [5197] in 1949, Little Wittenham reserve [59] in 1988, Kennington pits [50] in 1973, in a former swimming pool at Foxcombe Wood [489018] in 1990. Atlas 2000: [29], [49], [40], [59], [50]

APONOGETONACEAE

Lagarosiphon major (Ridl.) Moss ex V.A. Wager *Curly Waterweed*

• hyd 5

Lagarosiphon muscoides Harvey var. *major* Ridley

Elodea crispa hort.

“A commonly used aquarists’ weed which can dominate a small pond, but does not seem to colonise streams” (Brewis *et al.* 1996). Our plants are all females, spread by vegetative means.

Ascot: planted in the ornamental pond [9268] in the woodland to the east of Ascot Station (**OXF**) in 1975. Still there in Sole’s Pond in 1999.

East Berks: locally frequent in the inflow stream to Heath Lake [829653] in 1994. In new ponds on the golf course south of Knowl Hill [825786] in July 2003.

West Berks: Hitchcopse pit [49], Abbey Fishponds [59], in disused gravel pits at Radley [521972] from 1990-2004, [5096] in 1991 and [5296] in 1994. Drayton Millennium Pond [4894] in 2001.

Aponogeton distachyos L.f. *Cape-pondweed*

• hyd 5

Very rare garden ornamental, sometimes planted in wild-looking places.

Ascot: one clump, long-persistent in the shady eastern limb of Sole’s Pond at the bottom of the hill, east of Ascot Station. There in 1979, and still there, flowering on 27 June 2001 and 28 May 2002.

East Berks: introduced to a pond (1967) in the Queen’s garden at Frogmore [9775]; still there in 2003.

SCHEUCHZERIAACEAE

Triglochin palustre L. *Marsh Arrowgrass*

hel 6 ↓

Marshes, fens and wet meadows, mostly in the Thames valley. Much reduced in distribution and abundance through drainage.

NVC: M 13,22; MG 13

Ascot: no records

East Berks: Bisham, Wargrave, very fine in Sonning meadows, Coleman's Moor. Hurley, Cock Marsh. Now confined to the western reaches of the Thames from Reading (**LAN**) downstream to Cock Marsh and Shepherd Meadow at Camberley. < 1 % (1km²). Atlas 2000: [86], [88]

West Berks: commonest in the Northern Loop as in Wytham Meads, and extinct at several of its former stations in the Thames Valley. Very local in the extreme western parts of the Kennet valley as at Freeman's Marsh [3368], Rack Marsh and Hungerford Park [372673], Buckland Marsh [3300] in 2002. Still in an ancient wet pasture at Didcot [512910], Wytham Meads Ditches [4609] and on Frilford Heath golf course [442986]. Atlas 2000: [36], [37], [39], [49], [40], [59], [50], [67]

POTAMOGETONACEAE

Potamogeton coloratus Hornem. *Fen Pondweed*

hyd 6

A local speciality of shallow pools in base-rich but nutrient poor pools (its headquarters are in the fens of East Anglia). Susceptible to atmospheric eutrophication, even in nature reserves like Cothill Fen. Grows with *Chara hispida* and *Utricularia neglecta* (the Cothill record for the latter species is unconfirmed, but well worth looking for).

NVC: A 5; M 13

East Berks: no records

West Berks: pools of stagnant water in boggy places in calcareous fens, very local. Cothill fen (**RNG**) [4698] and Cothill pit [466995], Barrow Farm Fen [469977] and the pond in Dry Sandford Pit [467966]. Atlas 2000: [49]

Potamogeton nodosus Poir. *Loddon Pondweed*

hyd 8 ↓

A local speciality and *Red Data Book* species that grows in calcareous and moderately eutrophic rivers in both shallow and relatively deep water, where the flow is relatively rapid and the water is well aerated (e.g. downstream of weirs and sluices). Associated species include *Elodea nuttallii*, *Lemna minor*, *Myriophyllum spicatum*, *Nuphar lutea*, *Potamogeton crispus*, *P. pectinatus*, *Sagittaria sagittifolia*, *Schoenoplectus lacustris* and *Sparganium emersum*. Most leaves submerged with petiole at least half as long as blade, floating leaves cuneate (not rounded or cordate)

NVC: S 4

East Berks: discovered as new to Britain by Druce in 1893. Locally frequent in R. Loddon, occasional in the lower Thames. All the way from Stanford End to Wargrave, Hurley, Bisham, Cliveden reach (**BIRM**) in 1930, Hurley Lock (**BM**) and Bisham (**BM**) in 1940. It is also known pre-1940s from the R. Thames at Shiplake Station, Hurley, Bisham, Cliveden reach (**OXF**). Not seen since 1941 in the Thames, presumably as a result of eutrophication and boat traffic. Still at several stations in [76] and [77] along the eponymous R. Loddon, including Stanford End Mill (**LAN**), Swallowfield, Kings Bridge [716648], Moor Copse Arborfield, Shinfield (**OXF**), Earley, Sindlesham Mill (**RNG**), Winnersh, Woodley (**RNG**), Sandford Mill, Whistley Mill (**OXF**) and Chervil Farm. Found in July 2002 in the R. Thames at Wargrave [779797], but the detached leaf could easily have floated down from the nearby Loddon Mouth. < 1 % (1km²). Atlas 2000: [76], [77]

West Berks: no records

Potamogeton lucens L. *Shining Pondweed*

hyd 6 ↓

Rivers, canals and ponds, in flowing calcareous water. Once abundant, as Druce reports: "abundant and generally distributed in our larger streams", but "only locally frequent in clear water" by Bowen's time. All leaves petiolate, and more than 12cm, petiole unwinged near base.

NVC: A 2,11,15; S 8

East Berks: Woodley (**LAN**) in 1959, Swallowfield, Sandford Mill, Loddon, Maidenhead, Cliveden reach. Rare in the R. Loddon (**OXF** and **BM**) and extinct in the R. Thames north of Maidenhead (**BM**, last seen in 1949). J. E. Dandy made many collections from the Thames between 1932 and 1940 (**BM**). < 1 % (1km²). Atlas 2000: [76], [88]

West Berks: occasional in the R. Kennet and the Kennet and Avon canal from Hungerford [36] (**BM**) down to Reading [67], and in the Thames from Wytham [40] to Abingdon [59]. St John's Lock at Buscot (**BM**) [2298] in 1965, West Hagbourne Moor [58] in 1992, Ufton Bridge (**BM**) [6168] in 1940, Basildon (**BM**) [6179] in 1938. Atlas 2000: [46], [40], [56], [50]

Potamogeton x salicifolius Wolfg. *Willow-leaved Pondweed* = **P. lucens x P. perfoliatus**

East Berks: from the Thames in Reading (**RNG**) in 1921, but not seen since.

West Berks: in the Kennet and Avon canal at Hungerford [36], Newbury [46], Sulhamstead [66] and Burghfield and Theale [67], and from the R. Kennet at Ufton Bridge [6168] all with specimens (**BM**) from the 1940s but not seen recently.

Potamogeton alpinus Balb. *Red Pondweed*

hyd 6 ↓

Slow rivers and lakes, uncommon. Streams, pools and ponds; rare and local. Leaves narrowed, not clasping; stem round, all leaves with more than 7 veins.

NVC: A 11

East Berks: Before 1900 it was found in the R. Loddon from Stratfield Saye (**OXF**) [7062], past Shinfield (**OXF**) [7468], Sandford Mill (**OXF**) [7873] to Loddon Bridge at Twyford (**BM**) [7876], Virginia Water (**OXF**) in 1893. Last seen at Shinfield in 1933.

West Berks: where the R. Cole meets the R. Thames at King's Bridge, Buscot [2397] (**OXF** and **BM**) in 1947 but not seen since then.

Potamogeton praelongus Wulfen *Long-stalked Pondweed* hyd 5 ↓
 Potamogeton salicifolius auct., non Wolfg.

A local speciality, growing in rivers and canals in water at least 1m deep (it can be dominant at depths below 1.5-3m), often found with *P. perfoliatus*. Declined dramatically since 1950, probably as a result of eutrophication. Some leaves rounded, more or less clasping, stipules conspicuous (>1cm), leaves > 10cm.

NVC: A 11

East Berks: in the Thames at Bisham (**BM**) in 1873, Aston Ferry, Hurley, Bray. "R. Thames and its backwaters; local and decreasing" (**BM**) (Druce). Extinct in the R. Thames, last seen at Wargrave in 1944 (**RNG**). Never recorded from the other river systems.

West Berks: at Appleton Lower Common, Wytham meads, South Hinksey (**BM**) and Kennington. Extinct in the Thames from Abingdon [59] down to Reading [67], and at its two former stations in the interior from the Wiltshire and Berkshire canal at Wantage [48] (**OXF**) and Uffington [38] where it was known before 1900; Abingdon (**K**) [49] in 1882. Never recorded from the Kennet valley. Last seen at Kennington [5203] in 1973.

Potamogeton perfoliatus L. *Perfoliate Pondweed* hyd 6 ↓

Ponds, rivers, ditches, canals and streams in clear calcareous water; "common and widely distributed" in Druce's time but "now much reduced" (Bowen). Stipules inconspicuous, stem round, leaves more than 2cm wide.

NVC: A 8,10,11,12,15,23; S 8

East Berks: Cookham Reach (**BM**) in 1899, Reading, Whistley Mill. Only ever recorded from the vicinity of Reading. Last noted from a eutrophic stream at Smallmead (1972). < 1 % (1km²). Atlas 2000: [76]

West Berks: in the R. Cole [204976], Inglesham [29], the canal at Hungerford (**BM**) [36], Enborne and Newbury [46], in the R. Lambourn at Hunts Green south of Boxford [434702], in the Wiltshire and Berkshire canal at Abingdon (**OXF**) [49] in 1892, Newbridge [40], canal at Aldermaston [56] (**LAN**), Streatley (**BM**) [58], Radley [59], South Hinksey [50], Burghfield (**BM**), Aldermaston Wharf and Sulhamstead [66], Pangbourne, Theale, Calcot, Purley and Basildon [67]. Atlas 2000: [29], [46], [47], [40], [56], [50]

Potamogeton friesii Rupr. *Flat-stalked Pondweed* hyd 6 ↓

Ponds, canals and shallow streams with calcareous water; local. Still or slow moving water, growing with *Ceratophyllum demersum*, *P. crispus*, *P. pectinatus*, *P. perfoliatus*, *P. pusillus* and *Ranunculus circinatus*. Worth looking for as a colonist of flooded gravel pits. Stems not fan-like; leaves less than 3.5mm wide, entire and mucronate.

NVC: A 11

East Berks: extinct; only ever known from a single station at Cookham (**OXF**) in 1901. Atlas 2000: no records

West Berks: the canal at Hungerford [3368] (**OXF**) (last seen 1946) and Newbury [46] (**BM**), Abingdon (**BM**) [49], Moulsoford (**BM**) [58], a pool by the railway at South Hinksey [50] (**BM**) (last seen here (**OXF**) in 1975). Atlas 2000: [46], [50]

Potamogeton pusillus L. *Lesser Pondweed* hyd 6

Potamogeton trichoides auct., non Cham. & Schldl.
 Potamogeton panormitanus Biv.
 Potamogeton friesii auct., non Rupr.

The commonest pondweed in disused gravel pits, also found in rivers, ditches, ponds, where it is fond of slow-running or stagnant water. Uncommon but probably overlooked. Leaves abruptly mucronate, not rigid.

NVC: A 8,11

East Berks: Wargrave, Windsor, Bray, Haines Hill, Haws Hill. Woodley pit (**BM**), Twyford pit (**BM**), Cookham Moor, Thames at Cliveden (**BM**) in the 1960s. In the old gravel pits at Trilakes west of Sandhurst [829614] in 1975 (**OXF**). Colebrook Lake North

[8062] in 1991. Still occasional in Heath Lake [829652], Lower Lake at Sandhurst [8660] (but in the v.c.17 part), and in a backwater of the Thames at Hurley [824841] in 2002. 1 % (1km²). Atlas 2000: [86], [88]

West Berks: Stanford-in-the-vale pit [327940]. Wytham [40], Westfield [539925] (all **BM**). Recent records from Theale (**BM**) [67] Pingewood [66] gravel pits, and in Reading's Lake District [6870] and [6970] in 2002. Atlas 2000: [59], [50], [67]

Potamogeton obtusifolius Mert. & W.D.J. Koch *Blunt-leaved Pondweed* hyd 6 ↓

Lakes and gravel pits with acid water; locally frequent in east Berkshire. Broad, grass-like leaves forming fan-like sprays; stipules not fused into a tube around the stem.

NVC: A 7,8,10,11,13,23,24

East Berks: Druce had trouble with the Bulmarsh site, writing: "I have not seen the plant, as the owner of the property refused me permission to go over his estate", rather common in some parts of Virginia Water. Bearwood (1962-73), Woodley pits (1962), Bulmarsh (1965), South Lake (**BM**) 1965-72, Wokingham (1966), Virginia Water (**BM** and **OXF**) 1893-1931. Stud Green [884776] in 1966, Titness Park [9568] in 1974, east of Yateley Bridge (**OXF**) [828613] in 1975, gravel pits at Sandhurst [828613] in 1975, Wellington College [8364] in 1986. Still occurs at low density in Heath Lake [829652] mixed with *Elodea nuttallii*. In Upper and Lower Lakes at Sandhurst (in both v.c.17 and v.c.22) [8660] in July 2002. Locally plentiful in one place on the west side of Colebrook South Lake [8062] in Moor Green Lakes nature reserve in 2002. 1 % (1km²). Atlas 2000: [76], [86], [87]

West Berks: Atlas 2000: [46]

Potamogeton trichoides Cham. & Schldl. *Hairlike Pondweed* hyd 6 ↓

A local speciality of still, shallow water over soft inorganic substrates. It grows alone, mixed with *P. pusillus*, or in dense vegetation like *Elodea nuttallii*. Stipules not fused into a tube, leaves less than 1mm wide, fruits warty near base.

NVC: A 11

East Berks: not in Druce. Strand Ditch in 1938-40 [8985] (**BM**) and White Brook in 1939 [9083] (**BM**) at Cookham. Moor Green Lakes [807625] in 2001.

West Berks: gravel pit at Brimpton [567652] in 1986, and in Reading's Lake District [6970] in 2002.

Potamogeton compressus L. *Grass-wrack Pondweed* hyd 6 †

Extinct. Formerly in rivers and canals; locally common in Druce's time. Leaves mucronate with 5 main veins (2 submarginal); difficult to separate from *P. friesii*. Intolerant of shade and of disturbance by boat traffic.

NVC: A 11

East Berks: near Sonning, Bray, Windsor. R. Thames and its backwaters; rare and decreasing. Last seen at Wargrave [7878] (**RNG**) in 1944, Cliveden Reach [9085] (**BM**) in 1940. Not seen since then.

West Berks: formerly in several sites along the R Thames between Oxford and Reading; Abingdon (**RNG** and **OXF**) [4996] in 1882, in the old canal at Wantage (**OXF**) [3987] in 1894, Sandford Lasher (**OXF**) in 1885, Culham pool (**RNG**) [59] in 1935 and Ifley Lock (**BM**) [5203] in 1943, a backwater at Basildon (**BM**) [6178] in 1939. Not seen since. Extinct at its other 5 19th century stations in the Thames valley. Never recorded from the Kennet valley.

Groenlandia densa (L.) Fourr. *Opposite-leaved Pondweed* hyd 5 ↓
Potamogeton densus L.

Shallow ditches in fens and water meadows, canals and streams; "locally common" in Druce's time but "uncommon and decreasing" in Bowen's. Known at once by its opposite (not alternate) leaves.

NVC: A 12; S 14

East Berks: Sonning Meadows (**RDG**) in 1931, Shurlock Row, Wargrave, Virginia Water (1897), Bisham, in the White Brook on Cookham Moor (**BM**) in 1939 and 1958. Rare in the western reaches of the Thames valley, absent or extinct elsewhere. < 1 % (1km²). Atlas 2000: [77]

West Berks: now found scattered in the Kennet valley and in the Thames valley between Abingdon and Pangbourne. Extinct at Ashbury, Bishopstone mill pond and Acorn Bridge, South Marston [28] where it was last seen in 1932. Recent records from the R. Cole [2086], Inglesham [29], Hungerford meads (**BM**) and Kintbury (**K**) [36], the canal at Newbury and Hamstead Marshall [46], in the R. Lambourn at Boxford [429708], canal at Thatcham [5265], Hagbourne Moor [533875] (**BM**), shallow pits at Pumney [5397], in the R. Pang at Bradfield [6072]. It is extinct at 9 of the stations cited by Druce, mostly from the interior. Atlas 2000: [28], [29], [36], [46], [58], [59]

ARACEAE

Calla palustris L. *Bog Arum*

• hr 6 †

Ascot: planted in an ornamental pool in woodland east of Ascot Station (**OXF**) in 1975. Not in Sole's Pond since 1979.

Dracunculus vulgaris Schott *Dragon Arum*

• gt 5

A very rare garden outcast, found in scrub on waste ground. Unless it is hidden from view it will inevitably be knocked down by small boys with sticks, long before it reaches its full splendour. This behaviour is no doubt profoundly Freudian.

East Berks: 3 clumps under oak on waste ground in suburban housing where the Devil's Highway enters Crowthorne [844643], close to Broadmoor Hospital from the Criminally Insane from 1998-2004. Also at Brookers Row, not far away, in 1999. <1% (1km²).

West Berks: no records

JUNCACEAE

Juncus compressus Jacq. *Round-fruited Rush*

grh 6 ↓

Water meadows by the R Thames

and occasional by ponds and gravel pits elsewhere; local and uncommon. The outer 3 tepals are rounded, and the anthers are 0.5-1mm long, less than 2 times as long as the filaments

East Berks: Long Walk in Windsor Great Park, plentiful by the pond near Shottesbrooke Church (where Druce, on first seeing the plant in the vegetative state, thought it was *J. tenuis*), in meadows at Old Windsor. Shottesbrooke Pond, Cock Marsh, Cookham Common, Bray. Confined to meadows on the banks of the R. Thames. 1% (1km²). Atlas 2000: [87], [97]

West Berks: all but confined to Thames-side meadows in the Northern Loop [39] and [40], with outlying stations to the south of Reading [66] and [67]. Charney Bassett [39], Rushy Weir [30], Bablockhythe [435043], North Hinksey (**OXF**) in 1970, Harts Weir, Appleton and Filchampstead [40], Thrupp pits (**RNG**) in 1987, Radley pits and Sutton Courtenay [59], South Hinksey [50], Burghfield pits [66], Cranemoor Lake [67]. Most recently at Manor Farm Marcham [453960] in 2001, and from wet ground to the east of Buckland Warren at [343963]. The site in Radley gravel pits [520970] in 2000 (**OXF**) has been destroyed. Atlas 2000: [36], [39], [49], [40], [56], [59], [50], [67]

Juncus gerardii Loisel. *Saltmarsh Rush*

grh 6 †

Saline marshy meadows, extinct. Also a rare member of the roadside salt-advective community, not yet recorded from this habitat in Berkshire but well worth searching for. Told from *J. compressus* by the longer style (0.5-0.8mm rather than 0.1-0.3) and bigger anthers (1-2mm rather than 0.5-1mm).

NVC: MG 13; S 4,19

West Berks: found by Druce in 1892 at Manor Farm, Marcham [454961] in the celebrated saline spring where it grew with other maritime plants. Last seen in 1954, when there were about 100 plants. The site was destroyed during so-called 'agricultural improvements'.

Juncus ambiguus Guss. *Frog Rush*

th 5

J. bufonius var. *fasciculatus* Koch

Juncus ranarius Nees ex Songeon and E.P. Perrier

Very close to *J. bufonius*, told from it by a somewhat capitate inflorescence, with several flowers appearing in fascicles (not solitary), and by the rounded, mucronate (not acute) inner tepals which are only marginally longer (not much longer) than the truncate (not subacute) fruit. Inland, it is found on damp brackish ground or on lime waste. Only one 19th century record, but worth looking out for amongst *J. bufonius*.

West Berks: collected by Prof J.S. Henslow of Cambridge in June 1833, from damp ground at Cholsey [5985]. The herbarium sheet (**E**) shows a mixed gathering with *J. bufonius* (det. D.R. McKean in 2002). Druce had records of *J. bufonius* var. *fasciculatus* from Snelsmore, Greenham, Burghfield, Sandhurst and Theale, but these are not supported by specimens.

Juncus subnodulosus Schrank *Blunt-flowered Rush*

hs 7 ↓

Juncus obtusiflorus Ehrh. ex Hoffm.

Fens, marshes, wet bogs and sides of canals; very local and declining. Told from *J. bulbosus* by the fact that *J. subnodulosus* has rhizomes and lacks a swollen stem base, and by the shape of the tepals which are obtuse rather than acute.

NVC: M 13,22,24,27; OV 26; S 4,25,26

East Berks: not in Druce or Bowen. Found in tall wet meadows [8560] north of the Blackwater River to the west of the A321 in 1987. <1% (1km²). Atlas 2000: [86]

West Berks: occasional in the western reaches of the R. Thames and in the Northern Loop, but rare or extinct in the Kennet valley and absent from the interior (north of 70 and south of 95). Royal Military College, Shrivenham [28], by the R. Cole south of Colehill and west of Faringdon [29], Kintbury [36], Hatford, Buckland Warren and Pusey Common Wood [39], Snelmore Common [47], Frilford Heath, Frilford Fen, Fyfield, Tubney, Hitchcopses pit [453997], Dry Sandford pit [465996], Gozzards Ford fen, Cothill fen and Barrow Farm fen [49], Lashford Lane bog, Wytham Wood, Hinksey and Wootton fen [40], Crookham Common [56], West Hagbourne Moor [58], Barrow Hills, Thrupp House Wood and Abbey Fishponds [59], Kennington and South Hinksey [50]. Atlas 2000: [28], [29], [47], [49], [40], [56], [58], [59], [50]

Juncus x surrejanus Druce ex Stace and Lambinon = **J. articulatus x J. acutiflorus**

In some places, this hybrid is commoner than either of the parents. Intermediate in tepal size and shape, and of low fertility. The two parent species have 80 and 40 chromosomes, respectively.

West Berks: by Hagley pool (**OXF**) [4709] in 1946. This plant has 80 chromosomes rather than the usual 60.

Juncus x diffusus Hoppe = **J. inflexus x J. effusus**

The stems are not glaucous (as in *J. inflexus*) and they have continuous pith (as in *J. effusus*), but they have an inflorescence that looks like *J. inflexus*. Surely under-recorded.

East Berks: Loddon Bridge [7671] in 1897.

West Berks: Chilswell Farm [4903] in 1861 (**OXF**).

Luzula forsteri (Sm.) DC. *Southern Wood-rush*

hs 4 ↓

Juncus forsteri Smith

Juncoides forsteri (Kuntze)

Dry oak or beech woods on nutrient-poor soils; local and rather rare. Basal leaves less than 4mm wide, and the inflorescence not reflexed in fruit.

Ascot: formerly very local and rare by Blacknest Gate into Windsor Great Park [957688].

East Berks: in a wood between Hall Place and Harley-Ford, Bisham Wood, Windsor Park, Ashley Hill, Hurley, Quarry Wood, Arborfield, Wellington College. Rare and scattered on the periphery; absent from the interior. <1% (1km²). Atlas 2000: [76], [77], [86], [88]

West Berks: extremely local, and all but confined to the south-west outskirts of Reading [57] and [67]. Elcot [36], Hawkridge Wood and Red Hill [57], Unhill Wood, Ham Wood and Streatley [58], Sulham Woods, Bradfield (**OXF**) in 1892, Pangbourne (**OXF**) in 1896, Kent Wood (**RNG**) in 1892, Basildon Park and Tilehurst [67]. Atlas 2000: [56], [57], [58], [67]

Luzula x borneri Bromf. ex Bab. = **L. forsteri x L. pilosa**

Not uncommon where *L. forsteri* grows (see above); very low fertility, showing intermediate leaf width and shape of the inflorescence.

East Berks: Arborfield (1964), Quarry Wood (1897).

West Berks: Red Hill [5973] and in a beech wood at Basildon Park [6077].

Luzula sylvatica (Huds.) Gaudin *Great Wood-rush*

hs 5

Juncus sylvaticus Hudson

Juncoides sylvaticum Kuntze

Woods, thickets and heathy places, evincing a preference for sandy soils. Steep banks in old oak woods. Local, rare and decreasing. Berkshire is too dry for the plant to flourish in the way that it does in western Britain.

NVC: M 21; W 8,10,15,16

Silwood Park: probably introduced during landscaping of the Cannon Wood car park in 1987. Too dry, and not flourishing (1988-90), but subsequently recovered, and two good patches in April 1994 are still there in 2004.

Ascot: very local; dominant under pines over a large part of the woodland floor on the sloping bank just north of Ascot Station [923684] (1971-2000). Very local and rare; one tussock, just 30cm diameter, in the south-western corner of Wells Wood [931683] in May 2002.

East Berks: Park Place, Windsor Great Park, Bracknell, Sunningdale, Swinley, Finchampstead, Bearwood. Remenham [7783], Riggs Copse [844687], Bear Grove [811797], Warfield House at Newell Green [885711]. Rare or extinct in heathy woods to the south of 70 and rare in the western Thames valley; absent from the interior. Atlas 2000: [78], [87], [96], [97]

West Berks: Hamstead Marshall [46], Wytham in 1897, now gone, planted at Jarn Mound, Chilswell, Wootton Heath and Boars Hill [40], Aldermaston and Pond Copse [56], Coombe Wood, Colliers Copse and Hawkridge Wood [57], Bagley Wood [50], Mortimer and Ufton [66], Burghfield [67]. Atlas 2000: [40], [56], [57], [50], [67]

Luzula luzuloides (Lam.) Dandy and Wilmott *White Wood-rush* ● hs 6 ↓
Juncus luzuloides Lam.

East Berks: a garden plant, long established at Wellington College [8363] in 1895 (RNG) and 1963.

Eriophorum latifolium Hoppe *Broad-leaved Cottongrass* hel 5 ↓

Fens and flushed bogs, much more local than *E. angustifolia* and preferring lowland marshes on a calcareous soil. Never satisfactorily confirmed for Surrey, but still present in north-east Hampshire.

East Berks: Coleman's Moor, very rare in Druce's time, but extinct by Bowen's.

West Berks: very local and rare, now confined to the Northern Loop. Frilford golf course [4497], Cothill Fen [4699], Barrow Farm Fen [4697], Wootton Fen [4601], Barrow Hills [5198]. Dillenius recorded the plant from Chilswell Fen [4903] in 1730. Atlas 2000: [49]

[**Eriophorum gracile** W.D.J. Koch ex Roth *Slender Cottongrass*]

There are no Berkshire records, but the plant is present on Pirbright Common [95] just to the south in Surrey. It is believed to be extinct in North Hampshire.

Eriophorum vaginatum L. *Hare's-tail Cottongrass* hel 4 ↓
Eriophorum brachyantherum sensu Tutin, non Trautv. & C. Meyer

Very local and rare; close to extinction in an acid bog near Sandhurst.
NVC: M 16; U 2; W 4

East Berks: not in Druce. Very local in Wishmoor Bog below Deer Rock Hill [879634] in 1950, on either side of the boundary stream, straddling the Surrey border. There were about 10,000 plants here in 1966. It was still present but rare in 1999 with less than 100 individuals. Plants were divided and replanted by Ted Green in an effort to save the population from extinction. In May 2004 there were 80 inflorescences in a single patch of 4m x 5m on the Berkshire side, about 20m west of the Wish Stream, and 50m south-west of the road bridge. <1% (1km²). Atlas 2000: [86]

West Berks: no records

Trichophorum cespitosum (L.) Hartm. *Deergrass* hs 5 ↓
Scirpus cespitosus L.
Trichophorum cespitosum subsp. **germanicum** (Palla) Hegi
Trichophorum germanicum Palla
Scirpus cespitosus L. subsp. *germanicus* (Palla) Brodd.

Bogs, forest rides and wet heaths on acid, nutrient-poor soils, often on bare peat. Local and decreasing in south-east Berkshire.
NVC: M 16,21

Ascot: in the short, heathy rough on the golf course on Ascot Heath (still there in 2004), Swinley, Englemere, Whitmoor Bog, Kingsride, Buttersteep Hill, Tower Hill, Blane's Allotment, Sunningdale, Windsor Forest. Not in Silwood Park.

East Berks: "abundant in the heaths around Sandhurst" (Druce). Bagshot Heath, Wokingham Heath, Wellington College, Sandhurst, Finchampstead, Long Moor, Easthampstead Plain, Broadmoor, Crowthorne, Windsor Great Park. Owlsmoor, Wishmoor Bottom. 1% (1km²). Atlas 2000: [86], [96]

West Berks: extremely local on Silchester Common [66], and extinct at two of its 3 stations (formerly at Burghfield and Mortimer (RNG)). Atlas 2000: no records

Eleocharis uniglumis (Link) Schult. *Slender Spike-rush* hel 6 ↓
Scirpus uniglumis Link

Damp meadows, fens and pastures, rare and confined to North Berkshire. Told from *E. multicaulis* by the truncate (not oblique) angle of the uppermost leaf sheath, by its bi-convex (not 3-angled) nuts, and by the possession of 2 (not 3) stigmas.

NVC: M 22

West Berks: confined to the Northern Loop but for outlying stations at Hagbourne Moor [5387] and Inglesham [2098]. In wet meadows east of Noah's Ark [4396] and at Swinford [4408], from the famous saline meadow at Marcham [49] (**OXF**), fen at Wytham meads (**OXF**) [4709], Ferry Hinksey (**OXF**) [40], West Hagbourne Moor [58], South Hinksey [50], and by a pond at Radbrook Common [4508] in 1988. Atlas 2000: [49], [40], [58], [50]

Eleocharis multicaulis (Sm.) Desv. *Many-stalked Spike-rush* hel 7 ↓
Scirpus multicaulis Smith

Acid bogs, pond sides and wet places in heathland; local in the south. Told from *E. uniglumis* by the oblique (not truncate) angle of the uppermost leaf sheath, by its 3-angled (not bi-convex) nuts, and by the possession of 3 (not 2) stigmas.
 NVC: A 22; M 16,21

Ascot: Tower Hill (1965), Englemere Pond (1982, and still there in 2004), Sunningdale, Windsor Great Park. On the edge of ponds on Swinley [9165] and Royal Berkshire [8966] golf courses in May 2002.

East Berks: Sandhurst, Long Moor, Riseley, Bagshot Heath, Easthampstead, Broadmoor, Wellington College, Bracknell, Owls Moor. Wellington College (1962), Broadmoor Bottom (1987). 1% (1km²). Atlas 2000: [86], [96]

West Berks: Greenham Common [46] (**OXF**), Snelsmore Common [47] (**OXF**), Burghfield Common [66]. Atlas 2000: [57], [57], [66]

Eleocharis quinqueflora (Hartmann) O. Schwarz *Few-flowered Spike-rush* hel 6 ↓
Scirpus quinqueflorus F. Hartmann
Eleocharis pauciflora (Light.) Link

Fens and water meadows; very local and rare. The lowest glume is larger than in *E. acicularis* (2.5-5mm rather than 1.5-2.5mm) and the stems are rounder and wider (more than or equal to 0.5mm rather than less than 0.5mm and ridged).
 NVC: M 13; S 19

East Berks: no records

West Berks: South Hinksey [50] in 1880 (**OXF**), Frilford fen [4497], Cothill fen [4595] Atlas 2000: [49]

Eleocharis acicularis (L.) Roem. & Schult. *Needle Spike-rush* hel 8 ↓
Scirpus acicularis L.

A local speciality of shallow eutrophic water (less than 50cm deep) in sheltered lakes and backwaters of rivers, streams or canals. Commonly found on summer-dry, seasonally inundated sites or on river-dredgings with *Juncus bufonius*, *Gnaphalium uliginosum*, etc. Told by its very narrow stems (less than 0.5mm wide) with 4 ridges, and tiny lowermost glumes (1.5-2.5mm).
 NVC: A 8

Ascot: no records

East Berks: Bulmarsh Heath, rare on banks of Thames, Virginia Water, in the lake at Sandhurst. Once locally abundant, now extinct at many of its former sites, but there are recent records from Cock Marsh and from the shores of gravel pits at Charvil [781752] and [782758] and Sandhurst [8660] from the v.c.22 part of Lower Lake in July 2002. Moor Green Lakes [8062] in 2002, locally frequent. <1% (1km²). Atlas 2000: [77], [86], [88]

West Berks: extinct at all 8 of its former sites. Once known from the Wiltshire and Berkshire canal at Shrivenham [28], Eynsham [40], South Hinksey [50], the canal at Hamstead Marshall and Padworth [46] etc. Atlas 2000: no records.

Bolboschoenus maritimus (L.) Palla *Sea Club-rush* hel 7 ↓
Scirpus maritimus L.
Schoenoplectus maritimus (L.) Lye

Saline ditches and ornamental lakes. Local and rare.

East Berks: reported by S. Rudge from Sonning in 1800 (**BM**), but Druce could not find it here. Ted Green knew the plant from [8380] where it grew with *Ranunculus lingua* in 1978.

West Berks: still plentiful in 1897 in a deep saline ditch which bordered the east side of the brackish meadow at Marcham [4595], growing with *Zannichellia palustris* and *Ranunculus trichophyllus*, with *Apium graveolens* on the banks of the ditch (Druce, last seen here by Bowen in 1964). Also in a pond at Snelsmore [4671] and in Englefield Park Lake [6271] in 1962 (**RNG**). In a small reservoir, built in 1974, at Frilford [434977] in 1978. Atlas 2000: [59], [57], [67]

Scirpus sylvaticus L. *Wood Club-rush*

hel 6

Shady swamps on acid soils. Local and rare, but typically dominant where it occurs.
NVC: OV 30; W 5

Silwood Park: a Silwood speciality (**RNG** in 1970), locally dominant on flat muddy stretches of the Clear Brook (The Marsh, Gunness's Bridge), and occasional in the alder swamps around the Red Brook (Cascade Marsh and Great Mead). Also on the margins of The Lake at The Willows and Gunness's Thicket. It is home to several rare Heteroptera, most notably *Cymus obliquus* which is a southern and central European bug which was discovered by Dick Southwood in The Marsh at Silwood in 1956.

Ascot: very local. Johnson's Pond, Sunninghill Park, Windsor Great Park by Virginia Water.

East Berks: near Sonning, Windsor, near Wellington College, by the Loddon near Sindlesham Mill, rather plentiful on both sides of the Blackwater near Thatcher's Ford. Coleman's Moor, Wokingham, Sandhurst. Recently at Eversley Bridge [760629], Shepherd Meadow at Camberley, Moor Green Lakes nature reserve [8062]. 2% (1km²). Atlas 2000: [76], [77], [86], [96], [97]

West Berks: very local in the central Kennet valley with an outlying station at South Hinksey [50]; extinct elsewhere. Sandlford [46], Boxford and Winterbourne [47], Thornford Bridge, Great Wood, Woolhampton and Thatcham Station [56]. Atlas 2000: [46], [56], [57], [50]

Schoenoplectus tabernaemontani (C.C. Gmel.) Palla *Grey Club-rush*

hyd 6

Scirpus tabernaemontani C.C. Gmel.
Scirpus lacustris ssp. *glaucus* Hartm.

Told from *S. lacustris* by its shorter stems (to 1.5m rather than to 3m), which are narrower at their midpoint (3-8mm rather than c.10mm), and by the glumes which are densely papillose near the apex and midrib (not smooth). The nut is 2-2.5mm (not 2.5-3mm). The ecology is different too; the plant is more likely to be found in wetlands than in rivers. Druce looked hard and long for this species and failed to find it: "I have made repeated search for this about Marcham, but have been unable to find it there or elsewhere in the county. The glaucous form [of *S. lacustris* occurs] in the Wytham ditches ... but it has 3 stigmas". Perhaps most of the inland records are of garden escapes?

Ascot: in Sole's Pond to the east of Ascot Station 1979-2004.

East Berks: 'Zebrina' was in the new village pond (planted c.2000) south of Knowl Hill [825793] in July 2003. <1% (1km²).

West Berks: in the wetlands at Radley gravel pits [5296] in 2000, but *S. lacustris* is a far more abundant species here.

Eleogiton fluitans (L.) Link *Floating Club-rush*

hyd 6 ↓

Scirpus fluitans L.
Isolepis fluitans (L.) R. Br.

Floating in ponds and ditches of acid water; locally common in the heathy parts.
NVC: A 22-24; M 29

Ascot: in a shaded pond near Wood End [9270], north of Ascot Racecourse (1979-2004). Englemere Pond (1979-2004), Tower Hill, Virginia Water and other ponds in Windsor Great Park.

East Berks: Bulmarsh, pond at Hurst, Sandhurst, Long Moor, Wellington College, Bagshot, Broadmoor, Finchampstead, Spout Pond, Heath Pool, Bracknell. In an acid pond known as the Old Bathing Pool in the Royal Military Academy at Sandhurst [867613], and in the Surrey (v.c.17) part of the grounds at Upper Lake [8670] in 2002. A summer-germinating annual with a long-lived seed bank, flowering late in the summer (July to September). Atlas 2000: [76], [86], [96], [97]

West Berks: confined to the eastern Kennet valley, and extinct in most of its former stations. Hermitage pits [5173], Ufton Park [6366], Mortimer Common [6564], Wokefield Common [6566]. It was dominant in a shallow pond at [5817 6328] near Heath End in 2003. Atlas 2000: [56], [57], [66]

Blysmus compressus (L.) Panz. ex Link *Flat-sedge*

hel 6 ↓

Schoenus compressus L.
Scirpus caricis Retz
Scirpus compressus (L.) Pers., non Moench

Marshes and damp meadows on nutrient-rich soils; very local, but common where it occurs in the Upper Thames and Kennet valleys.

East Berks: no records

West Berks: two epicentres; on Abingdon Racecourse and in fields between it and Marcham [49], and in the western Kennet [36] to [56]. Freeman's Marsh, Hungerford in 1988 [3268], Boxford Church (**OXF**) in 1978 [4271], in a ditch by the saline meadow at

Marcham in 1954 and 1964 [49], by Thatcham canal (**RNG**) in 1951 [56], Downe House [57], West Hagbourne Moor [5387] in 1992. Atlas 2000: [36], [47], [49], [57], [58]

CYPERACEAE

Cyperus fuscus L. *Brown Galingale*

th 7 ↓

A local speciality and *Red Data Book* species of seasonally flooded pond margins, on soils rich in organic matter at the junction of the Tertiary deposits and the chalk. A summer-germinating annual with a long-lived seed bank, flowering late in the summer (July to September). The ground is typically open and heavily poached by cattle hooves. Associated species include *Agrostis stolonifera*, *Bidens cernua*, *Gnaphalium uliginosum*, *Hottonia palustris*, *Juncus bufonius*, *Mentha aquatica*, *Myosotis laxa*, *Oenanthe fistulosa*, *O. aquatica*, *Persicaria hydropiper*, *P. minor*, *Ranunculus sceleratus*, *Rorippa palustris* and *Stellaria palustris*.

East Berks: known only from the 3 ponds at Cock Marsh [880867]. Numbers fluctuate dramatically from year to year with variation in weather conditions and the intensity of competition from taller vegetation. Threatened by willow scrub encroachment, but this is periodically cut back as part of site management. The cattle grazing on the marsh is sympathetically managed. Neither Druce nor Bowen knew of this site. <1% (1km²). Atlas 2000: [88]

West Berks: extinct. Formerly known from a damp copse between Pangbourne and Sulham [67] in 1911 (**OXF** and **RNG**). Atlas 2000: no records

Schoenus nigricans L. *Black Bog-rush*

hs 5 ↓

Fens, bogs and marshes; very local and rare. These Berkshire records are the most continental in England and Wales; in Britain, *Schoenus* typically grows within a few miles of the seaside.

NVC: M 13,24

East Berks: Bagshot Heath, extinct (if indeed it ever grew here; the early record could have been from v.c.17 Surrey). The plant still grows in [96] across the border in Surrey just south of our area in Lightwater Bog and Great Bottom on Westend Common. Atlas 2000: no records

West Berks: restricted to the Northern Loop, extinct in its former stations in the western Kennet Valley (Kintbury [36] and Greenham Common [46]). Peat Bottom Wood [3495] and Hatford Wood [3394], fens at Frilford golf course [4497], Cothill [4699], Barrow Farm [4697] and Wootton [4701] and in Dry Sandford Pit [469996]. Atlas 2000: [49], [40]

Rhynchospora alba (L.) Vahl *White Beak-sedge*

hel 7 ↓

Schoenus albus L.

Wet heaths and bogs. The species has suffered a massive decline in distribution and abundance. To Druce it was "local but rather common where it occurs", whereas Bowen considered it to be "very local and decreasing". It is now rare and confined to south-east Berkshire.

NVC: M 16,21

Ascot: first recorded by Sir Joseph Banks from Sunningwell Bog in 1773 (**BM**). Bog near Windsor Great Park, "on the peat bogs in Sunningwell in great plenty". Long extinct as a result of drainage of the bog. It still grows on Sunningdale golf course [960655] on Chobham Common in the Surrey part of Sunningdale (v.c.17).

East Berks: Bulmarsh Heath, Bagshot Heath, Wellington College, near Sandhurst, Easthampstead Plain, Broad Moor, Wild Moor Bottom, near Bracknell, Crowthorne [8463] in 1967. Extinct at most of its former stations, but still at Owlsmoor Bog [849630], Wellington College Bog and Broadmoor. Atlas 2000: [86]

West Berks: very local and rare. Snelsmore Common [4671] in 1984 and 1999. Formerly at Three Firs [66] in 1892 (**RNG**) and Greenham Common [46] in 1897. Atlas 2000: [47]

Cladium mariscus (L.) Pohl *Great Fen-sedge*

hel 7

Schoenus mariscus L.

Shaded fens, very local and rare.

NVC: M 13,22,24; S 4,25

East Berks: no records

West Berks: about 50 plants in two separate patches in wet woodland at Peat Bottom Wood [335958] and [344954] in 1966 but not seen since. In cleared fen at Cothill [459996] in 1982 and 1988. Atlas 2000: [49]

Carex x boeninghausenia Weihe = **C. paniculata** x **C. remota**

West Berks: Cothill [4699] in 1890 (**OXF**) and 1962, Greenham Common [4560] in 1893 (**OXF**), Marcham [4596] in 1895 (**OXF**).

Carex diandra Schrank *Lesser Tussock-sedge* hs 5 †
Carex teretiuscula Gooden.

Fens, probably long extinct. The plant has long rhizomes and hence is not tussock-forming. The lower bract is very short and not leaf-like, and the blackish brown utricles have long beaks (more than half the length of the utricle).
 NVC: M 13

East Berks: not in Druce, who thought that “the plant should be found in the wet bogs about Sandhurst”, presumably because he had seen it at Greywell Moors [7150] in Hampshire not far to the south. Atlas 2000: no records

West Berks: collected by L.V. Lester-Garland at Frilford bog [4497] in 1912 (**OXF**), but not seen since then. Atlas 2000: no records

Carex vulpina L. *True Fox-sedge* hs 5 †
Carex otrubae auct., non Podp.

By ditches and rivers on heavy clay (not peat). Ligule truncate, leaf sheaths transversely wrinkled on the back, utricles slit down back of beak.

East Berks: extinct. Not in Druce. Formerly very local and rare at Remenham (1963). Atlas 2000: no records

West Berks: extinct. Collected at Coleshill [2393] in 1891 (**OXF**). Atlas 2000: no records

Carex x pseudoaxillaris K. Richt. = **C. otrubae x C. remota**
Carex x axillaris Gooden., non L.

East Berks: Swallowfield (1892) (**OXF**), Three Mile Cross (1892) (**RNG**), Whistely Green (1897), Twyford (1891) (**OXF**), Wokingham (1918) (**RNG**), Waltham St Lawrence (1918) (**RNG**), Whiteknights (1982), Winkfield (1992).

West Berks: Buscot [29] (**OXF**), Marcham [49] (**OXF**), Mortimer [66] (**RNG**).

Carex disticha Huds. *Brown Sedge* hs 6 ↓

Water meadows and marshes. Locally abundant in the Thames and Loddon valleys, occasional elsewhere. A classic water meadow plant. Like *C. arenaria* but the terminal spike is male only at the apex (not all male), the glumes are less than 5.5mm, and the leaf sheaths are herbaceous (not hyaline, save for the apical rim) on the back.
 NVC: M 22,27; OV 26,29; S 23

Ascot: no water meadows, hence no records.

East Berks: by the railway at Wokingham, Hurley, Sonning, Coleman’s Moor, Farley Hill, Sandhurst, Windsor Park, Ruscombe, Maidenhead. Water meadows by the R. Thames and R. Loddon but absent from the interior. Recently at Loddon Court, Crazies Hill, Shepherd Meadow at Camberley, Brook Farm, Leiper Hill. 2% (1km²). Atlas 2000: [76], [77], [86], [88], [97]

West Berks: occasional in wet meadows by the R. Thames all the way from Lechlade [29] down to Reading [67], but very uncommon in the Kennet valley (extinct at several of its former stations), and absent from the interior. Boxford water meadows SSSI [428719]. Recent records from Tuckmill [239898], near Buscot weir and Watchfield [29], Pucketty Farm [39], Buckland Marsh [30], Black Horse Field [467973], from Lashford Lane Bog [40] and Seacourt Stream at Wytham [4709], Little Wittenham [59], Iffley Meadows [50] and Cholsey Marsh [68]. Atlas 2000: all except [38], [48]

Carex dioica L. *Dioecious Sedge* hs 5 †

Among *Sphagnum* in short calcareous fen vegetation with other small sedges; formerly very rare, now extinct. Last seen in Surrey in 1933. The Mapledurwell site in north Hampshire [6852] was destroyed by the construction of the M3 motorway. Rhizomatous. Stems round and smooth; dioecious.
 NVC: M 13

East Berks: extinct. Last seen near Sandhurst in 1897.

West Berks: extinct. The most recent record was from Frilford [4497] in 1946. Formerly at Cothill fen [4699] in 1890 (**OXF**) and Wootton fen in 1860. Long extinct at its former Kennet valley stations which included Greenham Common [46], Aldermaston [56], Stanford Dingley [57], Burghfield [66].

Carex elongata L. *Elongated Sedge* hs 5 ↓

A local speciality of lowland ponds and canal sides or wet alder woods and flooded meadows which dry out in summer. Rarely found as an epiphyte on fallen trunks in alder or willow carr. Utricles not winged, reddish purple to dark brown (not pale, as in *C. curta*).

East Berks: found in 1890 "on a marshy tract of ground, once Coleman's Moor (**OXF** and **RNG**) in 1891, now almost entirely under cultivation. It occurs in hedges near Sandford Bridge and by a pond near Loddon Bridge" (Druce). Sparingly between Jouldern's Ford and Thatcher's Ford on the Blackwater (1898). Ditches along the Reading road past Hurst Grove. Sandford Mill [7873] in 1936 (**RNG**). By Bowen's time, the plant was thought to be extinct in our area, largely as a result of drainage followed by urban expansion. Still at Wisley in Surrey [05]. Very rare in North Hampshire in very wet, acid willow-carr and alder-carr, beside very wet ditches; the site at Aldershot [85] was destroyed by road building in 1994 but plants were propagated and moved to an adjacent site in Surrey. Between Sandhurst and Blackwater (**OXF**) in 1898. Thought extinct by Bowen, but refound by R.C. Palmer in 1977. There were about 15 tussocks in a copse north of Blackwater Station on the Berkshire side of the river [851602] (**OXF**). <1% (1km²). Atlas 2000: [86]

West Berks: Padworth [66] in 1961 (**RNG**), but extinct by 1984. Atlas 2000: no record

Carex curta Gooden. *White Sedge*

hs 5

Carex canescens sensu Light. et auct., non L.

A local speciality of ferruginous swamps, alder carr, *Sphagnum* bogs, marshes, and wet places on heaths, often in shade; local and rare; confined to south-east Berkshire. Heavily grazed by deer in early spring, and this delays flowering. A pale-green sedge found growing near to, but in wetter places than, the grass-green *C. remota*. The pale-green utricles are unwinged in their upper half (not winged like *C. ovalis*). It is simple to tell *C. remota* from *C. curta* on leaf colour alone. In flower, the lowest bract of *C. remota* is leaf-like and much longer than the inflorescence, whereas *C. curta* has virtually no lower bract at all.

NVC: S 8

Silwood Park: one of our rarest native plants. Local and rare in Cascade Marsh, in bare, muddy runnels in alder woodland close to the edge of the lake, opposite the outflow sluice [942690]. Discovered during a survey of the alder carr in August 1982. In May 2000 there were 10 good tussocks around an open, black swamp about 10m inland from the lake-side alders, and before the terrestrial oak-birch woodland began; there were 12 in April 2002 and 22 in May 2003. The other black swamps nearby were dominated by *C. remota* with its glossy, grass-green leaves. The tussocks of *C. curta* are about the same size, but paler, duller green, and earlier into flower. The population may be increasing in numbers, but the plant is absent from all but one of the apparently suitable patches of black swamp, and may be dispersal-limited. A big tree fall during the winter of 2002-03 created a large light gap nearby, and it will be interesting to see if this has a negative impact on *C. curta*.

Ascot: plentiful in Sunningwell Bog in Druce's time, but now much reduced through drainage. It is still locally frequent in standing ferruginous water beneath *Salix cinerea* in the north-west corner of Sunningwell Bog at [927683] growing with *Hydrocotyle vulgaris* and *Equisetum fluviatile*, beneath birches in South Ascot Bog [924677] with *Molinia caerulea* and *E. fluviatile*, by the lower of the two Sole's Ponds east of Ascot Station, and near the stream in the north-east corner of South Ascot Bog [927676]. Still at Tower Hill, under alder and birch at the western edge of Englemere Pond, and at Virginia Water. Other recent records from South Ascot [9267], and at Rapley Lakes [8964]. There is a thriving population in Whitmoor Bog, on the northern shore of the pond that backs onto the northern embankment of the railway line, immediately opposite the Sewage Works [891683]; in full flower on 28 April in the early spring of 2002 (it typically reaches full flower during the second week in May).

East Berks: Virginia Water, still plentiful there at the western end in Berkshire. In great luxuriance at Spout Pond and by Heath Pool near Wellington College. Sandhurst Lake, Heath Pool, Long Moor, road between Wellington College and Wokingham. Long Moor, Finchampstead Ridges, Queens Mere, Wokingham Station (**RNG**), Sandhurst Academy. Recently in the water of the stream on the eastern side of the lake close to the entrance to California Country Park. Also at Wishmoor Cross and at the eastern end of Upper Lake at the Royal Military Academy Sandhurst. Much the best place to see this plant, however, is from the boardwalk through Longmoor Bog [784653], at the western end of California Country Park, where it grows luxuriantly in alder carr with abundant *Equisetum fluviatile*. 2% (1km²). Atlas 2000: [76], [86], [96], [97]

West Berks: Atlas 2000: no records

Carex strigosa Huds. *Thin-spiked Wood-sedge*

hs 5

An ancient woodland indicator species, local and rare by small streams in oak and alder woods, in small quantity. Like a miniature *C. pendula*, with female spikes less than 3mm wide. Told from *C. sylvatica* by its almost beakless utricles (not long, scabrid and forked as in *C. sylvatica*) and much broader leaves (6-10mm not 3-6mm).

NVC: W 8

Ascot: no records

East Berks: not seen by Druce. Most frequent in the Reading area. Arborfield, Holme Park Farm, Bracknell. Recent records from ancient woodland remnants at Bridge Farm Arborfield [7467], Inkydown Woods [8584], Wykery Copse [851686] surrounded incongruously by industrial Bracknell, Bisham Wood [8585], Paddock Wood [870773], Goulding's Wood [856834]. <1% (1km²). Atlas 2000: [76], [77], [86], [87], [88]

West Berks: absent from the interior and most frequent in the south-east [56] and [66] with outliers in the Northern Loop and at Great Park Wood [341760]. Clarkes Gully Greenham [496640], Waterleaze Copse [467638], Fosbert's Copse at Wytham [4505], Long Copse [40], Radley Large Wood [5200], south of Crookham Common [5164], Douai Abbey [5767], Old Copse Beenham [589685], Inwood Copse [562634], Boars Gully Crookham [526641], Great Wood [5065], Coombe Wood [545735], Kings Copse [577706], Mortimer West End [6363], Brocas Land Farm [6563], Padworth Gully [6165], Admoor Copse [6070], R. Pang above Bradfield [6072], Pingewood [6869], Moor Copse [6474], Horsemoor Copse Tidmarsh [6473]. Atlas 2000: [37], [46], [49], [40], [56], [57], [50], [66], [67]

[*Carex depauperata* Curtis ex With. *Starved Wood-sedge*]

No Berkshire records, but worth searching for in dry woods. It was at Bargate Stone in Surrey [94], last seen in 1992 after a 20 year gap of repeated searching. Never found in North Hampshire. Utricles more than 5mm and beak more than 2.5mm; female spikes less than 10, male spike 1.

Carex laevigata* Sm. *Smooth-stalked Sedge

hs 6 ↓

Carex helodes Link

Shady and marshy places in wet oak and alder woods; local and uncommon in south-east Berkshire. Like *C. binervis* in having utricles with scabrid beaks, but with much broader leaves (5-12mm not 2-5mm wide), female glumes acuminate (not obtuse), fine red dots on the utricles, and ligules 7-15mm (not 1-2mm). Densely tufted, like *C. sylvatica*, but with broader female spikes (6-8mm wide), on peduncles with the exposed portion shorter than the spike, and utricles with rough (not smooth) beaks; non-flowering plants can be distinguished by the much shorter ligules of *C. sylvatica* (2mm not 7-15mm).

Silwood Park: local and rare in wet shade. The clump in Hell Wood west, on boggy ground by the lakeside beneath birch and alder was lost in 1991 when the site became overgrown. It has not returned following scrub clearance in 1994. Cascade Marsh, very local, at the transition to the wetter parts of the wood on 6 August 1989. Also in Mann's Copse, but the best population is in Water Meadow, in wet shade just above the seep that leads down from Cheapside into the Outflow Stream close to the Herons Brook boundary fence, where there were 10 tussocks in May 2000. In May 2003 the tussocks had all been eaten down to the ground by deer, while nearby *C. pendula* had been left entirely alone. One large plant on the Nash's Copse bank of the Outflow Stream on 30 May 2003, growing with *Deschampsia cespitosa* and *Carex remota*.

Ascot: no other records

East Berks: Crowthorne, in a bog in Windsor Great Park, in a damp thicket near Bracknell. Crowthorne (1962), Wokingham (1965), Windsor Great Park (1966). Lily Hill Park in Bracknell (1977). Confined to the acid soils of the south-east (absent north of 70). <1% (1km²). Atlas 2000: [76], [86], [96]

West Berks: very local, centred on [56], absent from the western parts of the Kennet valley and from all of the Thames valley and the interior. Greenham Common [46], alder wood south of Crookham Common, Bucklebury Common (**RNG**) in 1892, Inwood Copse, Carbins Wood and Great Wood [56], Fence Wood [57], alder woodland in Padworth Gully [6165], Burghfield [66], Bradfield, Moor Copse and Pangbourne [67]. Atlas 2000: [36], [46], [56], [57], [66], [67]

Carex distans* L. *Distant Sedge

hs 5 ↓

Marshy fields on nutrient-rich soils; local with a rather limited distribution. Told only with difficulty from *C. hostiana* by leaf blades and lowest bract gradually contracted to the apex, female glumes pale with narrow scarious margins.

East Berks: not in Druce or Bowen. Not in Surrey either, but recorded from the Loddon [65, 75, 85] in north-east Hampshire (v.c.12), so worth searching for. Atlas 2000: no records.

West Berks: rare in the Thames valley upstream of Wallingford, with an outlier in an old pasture at Enborne [439652]. Buscot and Longcot [29], Charney Bassett [39], Marcham and Cothill Fen [49], Lashford Lane Bog and Wytham [40], a fen at Hagbourne Moor [5387], Thrupp [59], Iffley Meadows [50]. Atlas 2000: [29], [37], [39], [49], [40], [57], [58], [59], [50]

Carex hostiana* DC. *Tawny Sedge

hs 6 ↓

Carex hornschurchiana Hoppe

Fens, marshes and bogs; local and rare. Told with difficulty from *C. distans* by leaf blades and lowest bract rather abruptly contracted to the apex (a narrow, parallel-sided point), and female glumes dark with broad scarious margins.

NVC: M 13,24

Ascot: Sunninghill (1897). Englemere Pond (1961). I have not seen it in the district.

East Berks: formerly very local and rare near Ascot. Not seen recently, and no specimens. Rare in Surrey [96] and north-east Hampshire [65, 75, 85]. Atlas 2000: no records

West Berks: confined to the Northern Loop: Frilford Heath [4497], a drying fen at Cothill [4699], Tubney, Barrow Farm Fen, Abingdon and Marcham [49], and formerly at Cumnor, Wytham and Boars Hill [40]. Atlas 2000: [37], [49], [40]

Carex x fulva Gooden. = **C. hostiana x C. viridula**

Carex x appelliana Zahn
Carex x leutzii Kneucker

Frequent wherever *C. hostiana* meets any of the 3 subspecies of *C. viridula*.

East Berks: no records

West Berks: like its rarer parent, confined to the Northern Loop; Cothill fen [49] in 1890 (**OXF**), Bessels Leigh [40] in 1880 (**OXF**), Cumnor [40] in 1938 (**OXF**).

Carex viridula Michx.

hs 6

Carex viridula subsp. **brachyrrhyncha** (Celak.) B. Schmid *Long-stalked Yellow-sedge*

Carex flava L. subsp. brachyrrhyncha Celak.
Carex lepidocarpa Tausch
Carex lepidocarpa Tausch subsp. **scotica** E. Davies
Carex viridula Michaux var. scotica (E. Davies) B. Schmid
Carex viridula Michaux var. lepidocarpa (Tausch) B. Schmid
Carex viridula Michaux var. elatior (Schldl.) Crins

Told from subsp. *oedocarpa* by the long beak (at least half as long as the curved body of the utricle).

East Berks: extinct at its sole station on Coleman's Moor c.1900 (**OXF**).

West Berks: confined to fens in the Northern Loop; Pusey [3596], Gozards Ford [4595], Dry Sandford Pit [469996], Frilford golf course [4497], Cothill [4699], Barrow Farm [4697], Wootton [4601], Cumnor [4500] (**OXF**), Hagbourne Moor [5387], Barrow Hills [5198] (**OXF**), Bagley Wood [5002] (**OXF**). Atlas 2000: [49]

Carex viridula subsp. **viridula** *Small-fruited Yellow-sedge*

hs 6

Carex oederi auct., non Retz.
Carex serotina Mérat
Carex pulchella (K. Lonnr.) Lindman, non S. Berggren
Carex bergrothii Palmgren
Carex serotina M, rat subsp. pulchella (K. Lonnr.) Ooststr.
Carex scandinavica E. Davies
Carex viridula Michaux var. pulchella (K. Lonnr.) B. Schmid

Told from subsp. *oedocarpa* by its much smaller utricles (1.75-3mm rather than 3.5-4mm), sessile (rather than distinctly stalked) male spike and bunched (not distant) lowest female spike.

East Berks: no records

West Berks: very local and rare in fens at Cothill [467997] in 1976 (**OXF**) and Dry Sandford Pit [467995] in 1979-2004. Atlas 2000: [49]

[Carex filiformis L. *Downy-fruited Sedge*]

hs 5

Carex tomentosa L.

A *Red Data Book* species of damp grassy places that is rare in the neighbouring vice-counties of North Wiltshire (v.c.7), Oxfordshire (v.c.23) and Surrey (v.c.17).

West Berks: there is an NCC record from Grafton Lock Meadow [2799] in 1982, but I can trace no details of it, and in the absence of an herbarium specimen or expert confirmation this is best treated as an error. It may be an Oxfordshire record from the northern bank of the Thames.

Carex montana L. *Soft-leaved Sedge*

hs 5 †

Formerly a local speciality of damp neutral to slightly acidic grassland, and light shade in woodlands. Extinct as a result of road building in 1973 (see below). Lower bract with sheath 0-2mm, brown, glume-like or bristle-like, while the female glumes are subacute and mucronate. Utricles 3-4.5mm, leaves mostly less than 2mm wide, soft and more or less erect. Its soft mid- to pale-green leaves, mat forming rhizomes, and mucronate female glumes distinguish it from *C. pilulifera*.

NVC: CG 2

East Berks: not in Druce, but in his Flora of Buckinghamshire he says it grows in Berkshire near Bracknell (1926). Not in Surrey or north-east Hampshire. The only Berkshire site was at St Ann's [835689] below Popeswood, where it was first described in 1917 (OXF) and known until 1972. It was destroyed by roadworks in 1973 during construction of the Coppid Beech roundabout which was enlarged to accommodate the flyover at the end of the A329(M) motorway. Turves that were brought into the Botanic Garden at Reading University to rescue the species no longer produce the plant. Recorded in 1934 and 1936 from Bracknell (both RNG) without detailed locations. It would be worth searching suitable grassland and woodland-edge habitats between Popeswood and Easthampstead on the western outskirts of Bracknell in May and June, because it would be excellent to rediscover this plant.

West Berks: no records

Carex elata All. *Tufted-sedge*

hs 5 †

Carex stricta Gooden., non Lam.

Carex hudsonii A. Bennett ex F. Hanb.

An extinct local speciality formerly found in marshy places by rivers, in peaty places and pond sides on peaty soil; always very local and rare. Planted garden relics survive locally. Forming extensive stands in its heartlands in East Anglia, Anglesey, Westmorland and Northern Ireland, but rare as scattered tussocks in Berkshire. Flowering (and hence recruitment for this non rhizomatous species) is very sensitive to water level and disturbance from boat traffic. Told from *C. acuta* by habit (usually densely tufted into tussocks), and leaf sheaths breaking into ladder-like fibres on the back. It can be confused with tussocky forms of *Carex nigra*. The garden plant is usually the yellow-leaved *C. elata* 'Aurea'.

Ascot: local and rare as a long-persistent relic cultivar *C. elata* 'Aurea'; large golden tussocks on the water's edge of the island in Sole's Pond east of Ascot Station (1979-2004).

East Berks: first found as a native as an immense tussock by the R Loddon in 1891 (OXF), and subsequently a few plants were discovered nearer to Sandford Mill (K) in 1910 and (RNG) in 1936. Sindlesham by the R Loddon in 1957. Recorded by Druce from Bracknell (1918) without further details. Not in Surrey and rare in north-east Hampshire. Atlas 2000: no records

West Berks: no records

POACEAE

Secale cereale L. *Rye*

• th 7

A very rare crop in Berkshire these days. Sometimes used in conservation crops designed to conserve rare arable weeds because of its relatively low competitive impact.

Silwood Park: grown for a few years in Silwood Bottom as part of a plant pathology experiment (1981-85), but not seen since.

West Berks: at Frilford [4496] in 1996.

Panicum schinzii Hack. ex Schinz *Transvaal Millet*

• th 6 †

Panicum laevifolium Hack.

East Berks: a grain and bird-seed casual found at Reading by V.E. Murray in 1924 (OXF).

Panicum capillare L. *Witch-grass*

• th 7

Told from *P. miliaceum* by its smaller spikelets (2-3.5mm not 4.0-5.5mm)

East Berks: by the M4/A33 Interchange [709702] in August 1999.

West Berks: Englefield [6271] in 1887 (RNG).

Panicum miliaceum L. *Common Millet*

• th 7

Waste places, "owing its origin to the sweepings of seed-shops and the cleaning of bird cages" (Druce). A frequent casual on warm rubbish tips and an occasional contaminant of imported topsoil.

Silwood Park: a rare casual in Oak Mead. One clump with 40 flowering stems in cultivated, methyl bromide treated fenced ground next to the old Block B. The ground was cultivated in spring 1998 and the plant found on 15 October 1998. Not seen since. Origin unknown, but probably introduced (perhaps by birds) in late spring 1998, because the seed is most unlikely to have survived the methyl bromide fumigation.

Ascot: locally frequent on imported topsoil on top of the gabion wall on the western boundary of the building site at Matthew Court Sunninghill on 23 October 2004. Growing with *Sorghum bicolor*, *Phalaris canariensis* and *Echinochloa crus-galli*.

East Berks: on rubbish in Reading and Windsor. Smallmead tip (1965), Cookham, Woodley tip (1969-75), Smallmead tip (1971), dumped soil in Whiteknights Park (1977). Locally frequent by the M4/A33 Interchange [709702] in August 1999. < 1% (1km²). Atlas 2000: [76], [77], [88], [96]

West Berks: 19th century records from Newbury [46], Abingdon Racecourse [49], Wytham Mill [40], Grandpont [50]. Recently recorded at Didcot tip [5392] in 1969, a gutter in Abingdon [4997] in 1976, a garden in Didcot [5190] in 1976, grown as a crop with maize south of Greathouse Wood [5873] in 1987-88, and an arable weed at Bradfield [589722] in 1988. Headland strip near Paices Wood [5821 6399] in 2003. Atlas 2000: [39], [46], [57]

Festuca x fleischeri Rohlena = **F. arundinacea x F. gigantea**
Festuca x gigas O. Holmb.

East Berks: Shottesbrooke [847785] in 1959.

West Berks: north-east of Wittenham Church [5693] in 1987 (**RNG**).

Festuca heterophylla Lam. *Various-leaved Fescue* • hs 6

Introduced in plantations on dry soils in shade; rare. Easy to identify by the contrast between the hair-like (< 0.6mm) basal leaves and the broad (2-4mm), flat leaves on the flowering stems.

East Berks: Reading (1960) (**LAN**), Leighton Park (1962), Whiteknights Park (**RNG**) in 1965, Bearwood, and on the lake border at Rapley Lakes [8964]. Atlas 2000: no records

West Berks: a lane bank on the Bere Estate [621751] in 1907 (**OXF**), 1962 (**RNG**) and often subsequently, Bradfield [6072] in 1936 (**OXF** and **RNG**), Pangbourne [620750] in 1971, Esso Reserve at Steventon [4789] in 1982, roadside bank at the bottom of Padworth Gully [6165]. Milton Hall [4680] in 1995. Atlas 2000: [48]

[Festuca lemanii Bastard *Confused Fescue*] hs 6
Festuca longifolia sensu Howarth et auct., non Thuill.
Festuca bastardii Kerguelen and Plonka

Under-recorded; often with *F. ovina* on both acid and calcareous soils. There are no Berkshire records yet. Told from *F. ovina* by its wider leaves (mid-rib to edge more than 0.57mm), larger spikelets (longer than 7mm) usually with awns longer than 1mm, larger panicles (up to 13cm), more numerous spikelets (up to 40), and longer basal internodes (up to 3.7cm).

Festuca brevipila R. Tracey *Hard Fescue* • hs 4
Festuca duriuscula auct.
Festuca trachyphylla (Hackel) Kraj., non Hackel ex Druce
Festuca longifolia sensu C.E. Hubb. et auct., non Thuill.
Festuca cinerea Villars var. trachyphylla (Hackel) Stohr
Festuca stricta Host subsp. trachyphylla (Hackel) Patzke, nom. inval.

Sown on roadsides, and common in grass seed mixtures. Also on railway banks, waste ground and old walls. The leaves have 4 adaxial grooves (not 2 as in *F. ovina* and *F. lemanii*), and longer lemma awns (1.2-2.6mm) and pedicels (1.2-2.8mm). The leaves are not strongly glaucous (as in *F. longifolia* Thuill.). Early flowering.

East Berks: frequent on the newly sown verges of the northern relief road at Quelm Park Bracknell in May 2003. There were two forms, both with purplish spikelets: the commonest had glabrous lemmas, while the rare form had the lemmas densely covered in short, bristle-like hairs.

West Berks: Druce had records from Buckland (**OXF**) [3598], Enborne (**OXF**) [4365], Frilford [4497], Radley (**OXF**) [5398] and Padworth [6166]. There are only two 20th century records from Tilehurst (**LAN**) [6874] in 1960 and Cothill [4699] in 1963. On the newly sown banks of the Newbury bypass in May 2001. Atlas 2000: no records.

Lolium x boucheanum Kunth = **L. perenne x L. multiflorum**
Lolium x hybridum Hausskn.

Occasional in sown leys.

East Berks: tip at Smallmead [7169] in 1982, a gravel pit at Cock Marsh [8886] in 1985.

Vulpia ciliata Dumort. *Bearded Fescue* th 5 †
Vulpia ciliata subsp. **ambigua** (Le Gall) Stace and Auquier
Festuca ambigua Le Gall
Vulpia ambigua (Le Gall) More

Disturbed soil on heaths; very local. Now extinct. Told from the other two common *Vulpia* species by spikelet number (1-3 rather than 2-5 bisexual, and 3-7 distal sterile rather than 1-2 sterile florets).

Ascot: sandy tracks on the old camp at Tower Hill [9066]. About 1000 plants in 1965. I have looked for it here and failed to find it.

East Berks: south of Wellington College in Bowen's time, but not seen recently.

West Berks: no records

Vulpia unilateralis (L.) Stace *Mat-grass Fescue*

● th 5 ↓

Triticum unilaterale L.

Nardurus maritimus (L.) Murb.

Vulpia hispanica (Reichard) Kerguélen, nom. inval.

Bare places in calcareous grassland, very local.

West Berks: chalk grasslands at Fair Mile, Moulsoford [5583] in 1956 (**RNG**) and 1966 (**OXF**), sand pit at Hitchcose Farm pit [452996] in 1967, 1980 (**RNG**) and 1999, Dry Sandford Pit [49] in 1980. Recently found by Susan Erskine in Faringdon pit [285942] on 2 June 1999 but not seen since. Atlas 2000: [29], [49], [58]

[Puccinellia fasciculata (Torr.) E.P. Bicknell *Borrer's Saltmarsh-grass*]

Poa fasciculata Torrey

Puccinellia pseudodistans (Crépin) Jansen and Wachter

Phippsia fasciculata (Torrey) Á. Löve and D. Löve

A rare member of the roadside salt adventive community, yet to be recorded from Berkshire. Told from *P. distans* by the lower panicle branches bearing spikelets almost to the base (not aggregated at the tips) and smaller anthers (less than 0.75mm).

[Puccinellia rupestris (With.) Fernald and Weath. *Stiff Saltmarsh-grass*]

Poa rupestris With.

Glyceria rupestris (With.) E. Marshall

A rare member of the roadside salt adventive community, yet to be recorded from Berkshire. Told from the last two species by its bigger lemmas (2.8-4mm not 1.8-2.5mm).

Briza minor L. *Lesser Quaking-grass*

● th 7

The ligule is longer than in *B. media* (2-6mm not 0.5-1.5mm) and the plant is an annual, lacking non-flowering branches.

East Berks: occurred as a casual near Reading (c.1890). Extinct according to Bowen. A new population was found in 1999 on a roadside in the northern suburbs of West End [8275]. <1% (1km²).

West Berks: rare on the gravel pot standing in the grounds of the Old Rectory at Burghfield [6668] in 2004.

Briza maxima L. *Greater Quaking-grass*

● th 7

An occasional garden plant, self-seeding freely and readily naturalized on dry substrates in full sun.

Silwood Park: very common and locally dominant on the cinder pot stand at The Greenhouses. It was first recorded here in 1985, was common by 1990 and dominant by 1996. It grows with other aliens, most notably *Nonea lutea*, and the area is now managed for their conservation. Below the Met Tower at Pound Hill in 1972. This population was extinct by 1979 having been overgrown by *Carex muricata* subsp. *lamprocarpa* (the sedge is unpalatable to rabbits and hence immune to grazing).

East Berks: not in Druce. A rare casual at Leighton Park (1951), on the railway near Sutton's Nurseries (**RNG**) in 1959, waste ground at North Town (1999). Garden outcasts in a beech wood south of the B3051 [580627] in July 2003. <1% (1km²). Atlas 2000: [88], [96]

West Berks: Atlas 2000: no records

[Poa infirma Knuth *Early Meadow-grass*]

th 1

Told from *P. annua* by its smaller anthers (0.2-0.5mm rather than 0.6-0.8mm), and the panicle branches tending towards erect (not spreading or reflexed) at fruiting. Possibly overlooked.

Poa chaixii Vill. *Broad-leaved Meadow-grass*

● hs 6

Plantations and shrubberies on the larger estates, where it is planted as a woodland ornamental. Very local, but sometimes in quantity. Told by its wide leaves (6-10mm) and large lowest lemma (more than 3mm). The top leaf on the stem is much shorter than its sheath.

East Berks: Leighton Park.(1962), north of Earley Gate at Whiteknights (1974, now gone). Atlas 2000: no records

West Berks: at the base of Riever Hill [36] in 1896 (**OXF**) and at Padworth [66] 1961-84. Atlas 2000: [57]

Poa palustris L. *Swamp Meadow-grass* ● hs 6 ↓

River banks and waste places; rare. Like *P. chaixii* but with long uppermost stem leaves, and leaves less than 6mm wide.

East Berks: not in Druce. By the Blackwater River near Yateley (**RNG**) [8162] in 1961 and by a ford near Sandhurst [835609] in 1966.

West Berks: Didcot [59] in 1929 (**OXF**) and on the river wall at Abingdon [49] in 1957 (det. J. E. Lousley). Little Wittenham Wood nature reserve [5792] in 1982.

Poa bulbosa L. *Bulbous Meadow-grass* hs 4 †

West Berks: casual colonist on a wall at Cothill Mill [4699] in 1894 (**OXF**). This plant is not native in Berkshire.

Catabrosa aquatica (L.) P. Beauv. *Whorl-grass* hel 6 ↓

Aira aquatica L.

Catabrosa aquatica (L.) P. Beauv. subsp. minor (Bab.) Perring and Sell

By springs and ditches, on nutrient-rich mud in unpolluted water. Uncommon, but sometimes dominant where it does occur.

Ascot: no records

East Berks: near Jouldern's Ford on the Blackwater (1897). Coleman's Moor (1918). Hurley (1966). Riseley Green (1966). <1% (1km²). Atlas 2000: [76], [86], [88]

West Berks: occasional, and scattered on low ground throughout; east of Lechlade [29], Hungerford Meads and West Woodhay [36], Letcombe springs [38], wet pasture at Enborne [46], south of Barrow Farm fen and Marcham [49], Northmoor lock and Harts Weir [40], Stanford Dingley [57], Hagbourne Moor and Streatley [58], Barton Court, Radley Park and in a fen drain at Thrupp [59], Sugworth Farm [50], Bradfield (**RNG**) [67]. Atlas 2000: all except [28], [29], [37], [39], [48], [66], [68], [69]

Glyceria fluitans x declinata

Differs from *G. x pedicellata* in its obscurely 3-toothed lemmas and chromosome number (2n=30).

East Berks: collected by the great C.E. Hubbard himself, in water by a pond between Sandhurst and Wokingham (probably Kings Mere or Queens Mere, but no more detail in Stace (1975) and no specimen in **OXF**).

West Berks: no record

Glyceria x pedicellata F. Towns. *Hybrid Sweet-grass* = **G. fluitans x G. notata**

Often forming large patches, even in the absence of one or both of the parents. Told from *G. fluitans* by the smaller lemmas (5-5.5mm rather than 5.5-6.5mm) and the anthers remaining indehiscent (as befits a sterile hybrid). Much over-recorded, but there are reliable records from the following locations:

East Berks: Whiteknights Park, Bracknell, Hurley.

West Berks: south bank of the R. Cole at Lechlade [2298], Rushy Weir and Buckland Marsh [30], Redhill Wood [46], Harts Weir, Wytham and Appleton Manor [40], Turners Green [5268], North Farm [5892], Hinksey (**OXF**) and Sandford Lasher [50].

Glyceria declinata Bréb. *Small Sweet-grass* hel 6 ↓

Glyceria plicata (Fries) Fries subsp. *declinata* (Bréb.) Weeda

Glyceria fluitans (L.) R. Br. subsp. *declinata* (Bréb.) O. Bolòs, Massales and Vigo

Glyceria notata Chevall. subsp. *declinata* (Bréb.) Weeda

Damp arable fields and margins of ponds. Occasional, but rare on the chalk. Declined as a result of drainage. Lemmas small (less than 5mm), distinctly 3-toothed at apex, exceeded by 2 sharply pointed apical teeth of palea.

NVC: A 8; MG 13; OV 32

Ascot: no records

East Berks: Jouldern's Ford, Coleman's Moor, Wellington College, Owlsmoor, Winkfield, Cookham Moor. Scattered and rare, but possibly under-recorded. <1% (1km²). Atlas 2000: [86], [87], [88]

West Berks: in the Northern Loop and scattered throughout the Kennet valley, but absent from the middle reaches of the Thames valley and from the interior. Freeman's Marsh at Hungerford [3369], Kintbury [36], Appleton [4401] (**OXF**), a fen drain at Thrupp [512970], Little Wittenham [59], Mortimer Common [6564]. Atlas 2000: all except [28], [37], [38], [47], [57], [58], [50], [67], [68], [69]

Glyceria notata Chevall. *Plicate Sweet-grass*

hel 5 ↓

Panicularia plicata

Glyceria plicata (Fries) Fries

Ditches, marshes and the margins of ponds and slow streams, often growing in water or on nutrient-rich soils; occasional, rare on the chalk. Less common than *G. fluitans* and absent from both the chalk and from very acid soils in south-east Berkshire. Declined as a result of drainage. Lemmas small (less than 5mm), not toothed, not exceeded by the 2 very short apical teeth of the palea.

NVC: A 8,20; MG 13; S 13

Ascot: no records

East Berks: Shottesbrooke, Earley, Ruscombe, Wokingham, Windsor Great Park. Very local, and more or less confined to the western reaches of the Thames from Reading to Hurley. There is an outlying record from Coppid Beech between Wokingham and Bracknell [8268]. <1% (1km²). Atlas 2000: [76], [77], [86], [88]

West Berks: occasional in all the major river valleys but absent from the interior (north of 75 and south of 85). Atlas 2000: all except [47], [68], [69]

Arrhenatherum elatius var. **bulbosum** (Willd.) St-Amans *Bulbous False Oat-grass*

hp 6

Arrhenatherum tuberosum (Gilib.) F.W. Schultz

Arrhenatherum elatius subsp. *bulbosum* (Willd.) Hyl.

This grass is told at once by the stout, typically double bulbs just below the soil surface. Above ground, the plant is bluer-green, with straighter, stiffer, more erect (less floppy) leaves than the type. It can be a troublesome weed of arable land.

Silwood Park: local in the permanent fallow, half way up the London Road side of Ashurst Four Acre Field [941685]. This variety was the subject of ecological experiments during the early 1980s and some of the individuals may be relics of these plantings.

East Berks: at Wokingham, Coleman's Moor, Bray, Sandhurst, and comes true from seed.

West Berks: scattered but widespread. Newbury, Faringdon, Hinksey.

[**Avena barbata** Pott ex Link *Slender Oat*]

No Berkshire records, but worth looking for. It is told from *A. strigosa* by its disarticulating rhachilla and by the dense, long hairs on the basal half of the lemma.

Avena strigosa Schreb. *Bristle Oat*

• th 7 †

Formerly a rare weed of cornfields, now a very rare casual. Unlike our other 2 wild oat species, the lemma veins reach to the apex of the bifid tip of the lemma.

East Berks: Binfield, Clewer, Hurley, Sonning. Not seen by Bowen. Extinct.

West Berks: Midgham (**OXF**) [56] in 1880, Streatley (**RDG**) [58] in 1910, Moulsoford Downs (**OXF**) [58] in 1912, Chilswell Farm [40] in 1944. No recent records.

Avena sterilis L.

Avena sterilis subsp. **ludoviciana** (Durieu) Gillet and Magne *Winter Wild-oat*

• th 6

Avena ludoviciana Durieu

Told from the much commoner *A. fatua* by its bigger glumes (25-30mm rather than 18-25mm) and by the way that the rhachilla breaks up at maturity to release 2 or 3-fruited disseminules (i.e. there is only a single abscission scar). This is commoner in winter sown than in spring sown cereals, and on heavy clay land than on sand.

Ascot: very local and rare on Locks Ride in 1999.

East Berks: not in Druce. Shottesbrooke. Recently at Fobney, Woodcra. 1% (1km²). Atlas 2000: [76], [86], [87], [88], [97]

West Berks: first record Didcot [59] in 1927 (det. C.E. Hubbard). Atlas 2000: [29], [39], [49], [40], [58], [59], [50]

Avena byzantina K. Koch *Algerian Oat* • th 6 †

Told from *A. sativa* by the fact that the rachilla breaks just above (not just below) each floret, and so remains attached to the next floret above (rather than to the next floret below).

East Berks: collected on Cookham tip [8985] by Edgar Milne-Readhead in 1954 (det. C.E. Hubbard).

[Deschampsia setacea (Huds.) Hack. *Bog Hair-grass*] hs 6
Aira setacea Hudson

A scarce British plant of bare, stony margins of shallow seasonally inundated pools on heathland, growing in wetter places than the otherwise similar-looking *Agrostis curtisii*. Intolerant of shade or competition from more aggressive plants.

East Berks: no definite records. The records from Finchampstead and Sandhurst (both 1916) by H.W. Monckton are plausible, but since they are not supported by specimens, they must remain doubtful. This would be a wonderful species to discover in Berkshire. Druce believed that the plant “may yet be found in the district of the Loddon on the Bagshot sands”, and it is possible that this is what prompted Monckton’s records. There used to be a site on Chobham Common (Birch Hill, south of Sunningdale in [96]), just out of our area in Surrey, but this was destroyed by the construction of the M3 motorway. It is still found nearby in other parts of Surrey [94, 95, 96], but it is gone from north-east Hampshire, where it used to grow in a wet bog on the eastern margin of Fleet Pond [8254] (Brewis *et al.*, 1996). “Difficult to find when in flower on account of the way it harmonises with the background, and almost impossible to find in years when it fails to flower” (Lousley, 1976). Atlas 2000: no records

West Berks: no records.

Anthoxanthum aristatum Boiss. *Annual Vernal-grass* • th 6 †
Anthoxanthum aristatum subsp. **puelii** (Lecoq and Lamotte) P. Silva
Anthoxanthum puelii Lecoq and Lamotte

NVC: OV 1

East Berks: a rare casual of cultivated fields, impermanent; in a wild-looking spot at Sonning (**RNG**) in 1884, in a sandy field with clover. On a grassy bank, in heathy country near Wellington College Station (**OXF**) in 1891, “perhaps introduced with pheasant food, but I saw no buckwheat near” (Druce). Also seen in a clover field near Clewer (1895). Extinct according to Bowen.

Phalaris angusta Nees ex Trin. • th 6 †
• th 6 †

West Berks: a rare casual found by V.E. Murray at Prospect Park [67], Reading (**OXF**) in 1912.

Phalaris aquatica L. *Bulbous Canary-grass* • hr 6 †
Phalaris bulbosa sensu L.(1759), non L.(1755)

East Berks: on the old nursery grounds of Sutton’s seeds at Reading [7473] in 1978 (**RNG**).

Phalaris minor Retz. *Lesser Canary-grass* • th 6 †

West Berks: recorded only once at Cothill [4699] where it was collected by Druce in 1925 (**OXF**).

Phalaris paradoxa L. *Awned Canary-grass* • th 6

An uncommon grain alien, found on set-aside land and in waste places.

West Berks: Kennington [50] in 1924 (**OXF**), Abingdon [49] in 1925, old railway near Furze Hills [2892] in 1987. Spoil heap at Abingdon Common [471963] in 2000 and 2001.

Agrostis castellana Boiss. & Reut. *Highland Bent* • hp 6
Agrostis capillaris L. subsp. castellana (Boiss. & Reuter) O. Bolòs, Massales and Vigo

A common component of seed mixtures found in lawns, roadsides and sports grounds. Frequent, but under-recorded. Palea large, rhizomes present. The only way to tell it from *A. capillaris* is to dissect the spikelet under high power with good illumination. The presence of a tuft of hairs on the lemma callus (although this is often inconspicuous) will confirm it. If there are awns (and there often are), they arise from the basal third of the lemma (not from the tip).

Silwood Park: locally abundant in cultivated grassland inside the rabbit fences at Oak Mead (det. T. Cope at Kew, 3 July 1997). Still there, inside the fence of Block B in June 2003. Origin unknown, and grasses were not supposed to be in any of the seed mixtures sown in the 1996 experiment. Possibly introduced with horse feed, pre-1995.

East Berks: not in Druce or Bowen. <1% (1km²). Atlas 2000: [96]

West Berks: no records

Calamagrostis epigejos (L.) Roth *Wood Small-reed*
Arundo epigejos L.

hp 7 ↓

Damp woodland rides and wood margins on clay soils; local. Taller and much later into flower than *C. canescens* (see below).
NVC: S 24

East Berks: in Druce's time the plant was at Virginia Water, Windsor Great Park, Barkham. Recently from Waltham St Lawrence, Ashley Hill, Jealott's Hill, and Binfield. Extinct at Barkham and in Windsor Great Park and Virginia Water. <1% (1km²). Atlas 2000: [87], [88]

West Berks: very local; all but restricted to the Northern Loop. Tuckmill Meadows [28], Hatford and Buckland Warren [39], Cothill Fen and Parsonage Moor [49], Appleton Lower Common, Tubney Wood, Boars Hill, Marley Wood and Wytham [40], Radley Station and Sugnell Copse [59], Englefield [67]. Atlas 2000: [29], [39], [49], [40], [59], [50], [67]

Calamagrostis canescens (F.H. Wigg.) Roth *Purple Small-reed*
Arundo canescens Wigg.

hp 5 ↓

Much rarer than *C. epigejos* and told from it by its hairy (not scabrid) upper leaf surface and shorter ligules (2-4mm rather than 4-9mm) and lemmas with shorter basal hairs (not more than 1.5 times as long as the lemma). It seldom grows more than 1.2m tall, whereas *C. epigejos* can grow up to 2m in height. It flowers much earlier than *C. epigejos* (by up to 6 weeks).
NVC: M 22; W 5

East Berks: Atlas 2000: no records

West Berks: very rare in a shady carr at Colliers Copse near Bessels Leigh [449011] in 1969 (OXF) and subsequently. Also in Cothill Fen [49]. Atlas 2000: [49], [40]

Ammophila arenaria (L.) Link *Marram*
Arundo arenaria L.

hp 7 †

East Berks: on Suttons old nursery grounds in Reading in 1978, perhaps brought in with beach sand? Atlas 2000: no records

Lagurus ovatus L. *Hare's-tail*

• th 6 †

This is a relatively popular garden plant, and self-seeds in flower beds. Plants seen on waste ground in towns are more likely to be garden escapes than grain-aliens or bird-seed outcasts.

East Berks: a single plant in the bicycle racks at Whiteknights Park in Reading [7472] in May 1977 (RNG).

Apera spica-venti (L.) P. Beauv. *Loose Silky-bent*
Agrostis spica-venti L.

o th 6

An elegant, tall, annual grass weed of dry, sandy arable land; one of our local specialities. Locally, a serious weed of wheat crops on light soils. Otherwise, a garden escape or casual, rarely established at any one site for more than a few years. Regarded as an alien by Easy (in Stewart, 1994) but considered native by both Druce and Bowen. Stace says "possibly native". Now classed as an archaeophyte (Preston, Pearman and Dines, 2002).

Silwood Park: one of our few nationally scarce plants. Silwood may be the site from which Druce knew the plant in the 19th century: he wrote "near Sunninghill just within the county". It is locally frequent in the south-eastern corner of the arable fallow at Ashurst Four Acre Field, which has been managed specifically for the conservation of this beautiful grass since 1985; particularly abundant in July 2003 after spring cultivation, in places where the *Cirsium arvense* was less dense, but there were only 5 stems in July 2004 following autumn cultivation in 2003. Also found in the October-cultivated plots (replicate 1, nearest the Met Tower) of the Pound Hill disturbance timing experiment on 4 July 1999, but much rarer at this site than at Ashurst.

East Berks: cornfields near Old Windsor, common in sandy fields among corn, Emmbrook Brickfields, abundant in a cornfield near Ambarrow, Finchampstead, Sandhurst. Hurst, Sonning, Reading tip, Wargrave, Twyford, Little Sandhurst, Easthampstead, Warren Row, Bracknell, Cookham, Sunninghill, Old Windsor. Scattered in the sandy parts of the region, with recent records from an old

gravel pit at Queen's Eyot near Bray [9178], a commercial fruit growing enterprise at Grays Farm Wokingham [8267], wheatfields at Cookham Dean [8785] and arable land at Holm Grange [8367]. 1% (1km²). Atlas 2000: all except [78]

West Berks: local and rare. Cornfield at West Hagbourne Road near Didcot [5188] (**OXF**), in an old pit at Pingewood [690693]. Common inside recently-erected rabbit fences at Dry Sandford Pit [4699] in June 2002 and May 2004, suggesting that the plant may be under-recorded in heavily grazed communities. The commonest weed in a wheat field at Kingston Bagpuize [4098] in July 2003. Atlas 2000: [58], [59]

Apera interrupta (L.) P. Beauv. *Dense Silky-bent*
Agrostis interrupta L.

• th 6

A nationally scarce grass of arable land, rail verges and gravel pits, growing with *Arenaria serpyllifolia*, *Catapodium rigidum* and *Sagina procumbens*. It is a tiny plant when growing on unfertilized sandy soils, but can reach 50cm on fertilised arable land (in East Anglia it is sometimes regarded as a serious arable weed). G. Easy considered it to be a native plant of sheepwalks on the chalk and Stace says "possibly native". Now classed as an neophyte (Preston, Pearman and Dines, 2002).

East Berks: no records

West Berks: restricted to the Northern Loop, where it was first recorded by Druce from a wall in Marcham [4596] in 1900, with an outlying station on Greenham Common in the south. Next found in arable land at Frilford (**OXF**, **LAN** and **RNG**) [442962] between 1923 and 1960. Discovered on Frilford Heath golf course [448986] in 1964. Found at the back of Cothill pit [467995] in 1981. Discovered in 1995 in a sandy field planted with *Vicia faba* at Marcham [446969] and a cereal field at Bessels Leigh [459019]. Found recently by Ron Porley on Greenham Common [521643] in 1998; the tiny plants were locally frequent on open sandy ground at the south-east corner of the former military airbase, discovered during work to clear away the old runways; still there in 2002. In set-aside at Black Horse Field [468979] and Frilford Heath [447981] in 2001. The most recent discovery was in a field north of the sandstone pit at Tubney [448008] in 2002. Atlas 2000: [49], [40], [56]

Polypogon monspeliensis (L.) Desf. *Annual Beard-grass*
Alopecurus monspeliensis L.
Polypogon paniceus (L.) Lagasca

• th 6

There are many more modern records of this grass than for most of the casual wool-aliens and bird-seed casuals, because this species is cultivated in gardens, and most of the records are probably of garden escapes. Also a contaminant of pheasant food. Unmistakable with its dense but delicate, silky greenish-white flower heads. A coastal species as a native in Britain, but not native in Berkshire.

Silwood Park: very rare, first recorded on 11 June 2004. Five widely separated plants, each with 5-8 flowering tillers, on introduced topsoil used to finish the landscaping of the lysimeters at Ashurst in summer 2003.

East Berks: Smallmead tip [7169] and old allotments on Gillette Way, Reading [7170] (**RDG**) in 1982. By the M4/A33 Interchange [709702] in 1999. <1% (1km²). Atlas 2000: [76], [77]

West Berks: first collected from the railway at Didcot [59] in 1892. Waste ground at Cothill [466995] in 1969 but extinct by 1971, gravel pit at Appleford Halt [5293] in 1976 (**OXF**), gravel pit at Steventon [4792] in 1978 (**OXF**) where flowering plants ranged in height from 1cm to 170cm, tip at Pingewood pits [6969] in 1986. Radley [5296] in 1994, Hitch Copse pit [4498] in 1995, Tadley Common [605625] on 13 June 2001, on bare ground where topsoil had been stored. Abingdon Common [472962] in 2001. Compact waste ground in Reading's Lake District [6969] in July 2002. Rutted tracks in Wasing Wood [5763] in September 2004, probably from pheasant food. Atlas 2000: [39], [49], [59], [66]

Alopecurus x brachystylus Peterm. = **A. pratensis x A. geniculatus**
Alopecurus x hybridus Wimmer

Intermediate in most characters (spikelet length 3-4.5mm) and highly sterile.

East Berks: wet fields at Sindlesham Mill (1966).

West Berks: water meadows at West Brook Farm by the R. Lambourn at Boxford [4272] in 1978, and a wet field at Pingewood pit [690693] in 1986.

Alopecurus aequalis Sobol. *Orange Foxtail*
Alopecurus fulvus Smith

th 5 ↓ or †

A local speciality of mud at the margins of shallow ponds, gravel pits and reservoirs often growing with plants like *Agrostis stolonifera*, *Chenopodium rubrum* and *Juncus articulatus*. Fluctuating greatly in abundance from year to year. Told from *A. geniculatus* by its orange (not purple) anthers and lemmas un-awned or awns not exerted by more than 0.5mm. It prefers wetter places than *A. geniculatus*.

NVC: OV 35

East Berks: almost certainly extinct. “A conspicuous object from its bright orange-scarlet anthers and glaucous foliage” (Druce). Formerly very local and confined to a few localities on the London clay. Brickfield by Emmbrook Mill [7969] north of Wokingham (1871), still there sparingly in 1889 (Rev V.C. Crawley), but plentiful in 1892 when Druce ripped up considerable quantities of plants for the Botanical Exchange Club. In great abundance in two ponds opposite Shottesbrooke Church [838764] (**OXF**) (the ponds nearer Waltham, not the one closest to the church) on the road to Twyford (now the B3024) in 1894. Marshes near Twyford and Ruscombe (1897). It was still at Emmbrook Mill in 1930 (**RDG**), but not seen in Druce’s other sites. Scandalously, the once-celebrated ponds at Shottesbrooke were destroyed for land-fill during the 1980s. Very scarce in both Surrey [95] and north-east Hampshire [75, 76]. Not in Wiltshire or in the adjacent parts of Oxfordshire. Well worth searching the wet ground around the massive M4/A329(M) interchange [7970]. Atlas 2000: no records

West Berks: probably extinct. Padworth Common [66] in 1918, Grazeley Green (**BM**) [66] in 1935, a pond on Sulham hill top [67] in 1955, and old gravel pits at Pingewood [690693] in 1986. Atlas 2000: no records

Bromus japonicus Thunb. *Thunberg's Brome* • th 6

Silwood Park: grown in competition experiments with other Bromes in Nash’s Field in 2000-02.

East Berks: no records

West Berks: seen by Druce on the Berkshire side of the R. Thames between Oxford and Iffley [50] in 1892, but no specimen.

Bromus squarrosus L. • h 6 †

West Berks: seen by Druce at Wytham Mill [40] in 1897, but no specimen.

Bromus arvensis L. *Field Brome* • th 6 ↓

East Berks: in a wheat crop [864740], in the corner of a field north-west of Jealott’s Hill in 1999.

West Berks: on the railway at Didcot [59] in 1892 (**OXF**), between Ferry Hinksey and Hen Wood [40] in 1897, and on downland [58] in 1931 (**RDG**).

Bromus commutatus Schrad. *Meadow Brome* th 6 ↓

Bromus pratensis Ehrh. ex Hoffm., non Lam.

Bromus racemosus L. subsp. *commutatus* (Schrader) Syme

Rich, damp meadows in the Thames valley, field borders and cultivated ground. Locally abundant in Druce’s time but now much decreased through drainage and improvement of meadow land. Absent from south Berkshire. Long panicle branches, big spikelets, hairy lower stems and long awns give the plant a distinctive jizz. Hard to distinguish from *B. racemosus* without careful measurement of lemma, anther and lowest rhachilla segment lengths. Lemmas 8-11mm, anthers mostly 1-2mm, and the segments of the lowest rhachilla are longer (1.3-1.7mm rather than 0.7-1mm).

Silwood Park: very local and rare. In tall mesic grassland at Pound Hill on 2 June 2000. The lemmas (10mm) were glabrous, the pedicels 3 times as long as the spikelets, and the lowest rhachilla segments were 1.5mm. Not seen since.

East Berks: on the Reading road near Hurst, Finchampstead, Jouldern’s Ford, Sonning, Bisham, Bray, Windsor. Maidenhead, Old Windsor. Extinct at most of its former Thames-side stations, but still at Maidenhead, the Cavalry Exercise Ground in the Great Park, and Old Windsor. Apparently extinct in the Blackwater meadows at Sandhurst. Locally frequent in a wheat crop at the edge of arable land by the former Cider House on the Drift Road in July 2003. <1% (1km²). Atlas 2000: [77], [88], [97]

West Berks: Great Coxwell and Grafton Lock meadow [29], Uffington [38], Pucketty Farm, Balking and Charney Bassett [39], Buckland Marsh [30], a damp pit at Milton [4892] (**OXF**), Cothill Fen and Abingdon Common [49], Farmoor, Long Leys Farm and Wytham Meads [40], in a wood (oddly) at Aldermaston [5966] (**LAN**), Little Wittenham and Radley [59], Kennington [50]. Atlas 2000: [28], [29], [38], [39], [30], [49], [40], [59], [50], [67]

Bromus commutatus x **racemosus**

West Berks: in a field border on the south side of Beacon Hill near Stroud Copse [4407] in 1964 (**OXF**) (det. P.M. Smith).

Bromus racemosus L. *Smooth Brome* th 6 ↓

Meadows and pastures; locally common, especially near the Thames but absent from south Berkshire. Told from *B. commutatus* by its smaller lemmas (6.5-8mm), and bigger anthers (mostly 1.5-3mm), and its shorter lowest rhachilla segments (0.7-1mm).

NVC: W 8,10,12,14

East Berks: Old Windsor (**K**), in the riverside meadows under Bisham Wood, Sonning, Bray and in many of the Thames meadows. Uncommon in water meadows in the Thames valley and by the R. Loddon at Stanford End [705631] and Riseley [7263] (**LAN**).

Also on dumped soil at Reading gas works [7373] in 1985. Absent from the interior and the south-east. <1% (1km²). Atlas 2000: [76], [77]

West Berks: an interesting contrast between the Thames water meadows where it is frequent and the Kennet where it is absent. Druce notes "Thames meadows near Lechlade and at intervals along the river's course to Oxford, but not so generally distributed as *B. commutatus*". Long Leys Farm west of Cumnor [443045] in June 2002. Still at Little Coxwell and Grafton Lock [29], Pucketty Farm [39] and Little Wittenham [59]. Atlas 2000: [29], [38], [39], [46], [48], [49], [40], [58], [59], [50], [67], [68], [69]

[*Bromus hordeaceus* subsp. *thominei* (Hardouin) Braun-Blanq. *Sand Soft-brome*]
Bromus thominei Hardouin

A small coastal plant, much over-recorded for *B. x pseudothominei*. Told from it by size (culms up to 8cm rather than more than 10cm) and short caryopses (less than the palea rather than equal to it).

Bromus x pseudothominei* P.M. Sm. *Lesser Soft-brome* = *B. hordeaceus* x *B. lepidus

Bromus x thominei sensu Tutin et auct., non Hardouin

• th 6

Bromus hordeaceus L. subsp. *pseudothominei* (P.M. Smith) H. Scholz

Often found without either parent nearby, and under-recorded (typically as *B. thominei*). I have put all of the records of *B. thominei* here, but they should be checked.

West Berks: Riever [36] in 1936 (**OXF**), St John's Lock [29] in 1947, Letcombe Bassett in 1956 (**OXF**), Cumnor and Appleton [40] in 1965 (det. T.G. Tutin). At Blewbury (**LAN**) [5385] in 1959.

Bromus lepidus* Holmb. *Slender Soft-brome

• th 6

Bromus gracilis Krosche, non Leysser and Weigel

Bromus britannicus I.A. Williams

Roadsides, waste ground and grassland, especially on the chalk; occasional but always in man-made habitats. The lemmas are very small (less than 6.5mm) compared with *B. racemosus* and *B. commutatus*, and the caryopsis is longer than the palea. The lemmas are glabrous with a straight awn (2-5.5mm). Told from *B. hordeaceus* ssp. *hordeaceus* by its much smaller lemmas (5.5-6.5mm not 8-11mm).

Ascot: Bowen recorded the plant in 1968, but I have not seen it here.

East Berks: a typical scattered alien distribution. Shinfield, Reading, Dinton Pastures, Wokingham, Holyport, Jealott's Hill, Hurley, Windsor (**K**). 1% (1km²). Atlas 2000: [76], [77], [87], [88]

West Berks: first recorded in 1929 from Rivar Copse [3562] and Basildon [6078]. Also at St John's Lock, Lechlade [2298] and on The Fair Mile [59]. Scattered and uncommon, but most frequently recorded in the Northern Loop and around Reading (e.g. the old pit at Pingewood [6869] in 1987). Possibly over-recorded. Atlas 2000: all except [36], [46], [68]

Bromus interruptus* (Hack.) Druce *Interrupted Brome

• th 6 †

Bromus mollis L. var. *interruptus* Hackel

An endemic British rarity discovered by Druce in a Berkshire cornfield (see below). Extinct in the wild, but maintained in cultivation at Kew Gardens and elsewhere. The palea is divided almost to the base, as pointed out to Druce by the Rev L.V. Lester.

A *Red Data Book* species, regarded as extinct in the wild in Britain, having last been recorded in 1972 in Cambridgeshire. It might have arisen as a spontaneous mutant in a Sainfoin field in about 1870, or been imported from an unknown native location, but it increased dramatically so that by the 1920s it had been recorded from 65 hectads across whole of south-east England. Its subsequent decline was probably due to improved seed-cleaning methods. By 1962 only one site was known, and conservation action did not succeed in saving the species in the wild.

East Berks: extinct. Formerly at Park Place (1894) in a field of Sainfoin (**BM**), and near Windsor (1918).

West Berks: discovered by Druce when it was new to science, and kept under observation for 7 years, in chalky fallow between Blewburton Camp [5486] and Unwell Wood in July 1888, and at Aston Tirrold [5584], Goring [6180] and Unhill Wood [5682] (**OXF**). Very abundant in a field of seeds near Upton [5186] in 1895 (**BM**, **OXF**, etc.), in an arable field near Moulsoford [5983] and among 'seeds' near Streatley [5980] in 1897. Druce contributed specimens to the Botanical Exchange Club, with the result that sheets are represented in many Herbaria (**BIRM**, **BM**, **CGE**, **NMW**, **OXF**, **SLBI**). It came true from seed and was fairly persistent at its localities. The fact that Druce did not find *Silene dichotoma*, *Crepis vesicaria* subsp. *taraxacifolia* or *C. nicaeensis* growing with it, led him to conclude that this was not an alien introduced with continental grass seed, but a new native taxon. A specimen in Kew labeled *B. mollis* var. *pseudo-velutinus* was dated 1849. Extinct in the wild.

Bromus secalinus* L. *Rye Brome

○ th 6 ↓

A rare casual in cornfields and waste places; probably decreasing. As in *B. pseudosecalinus*, the rhachilla is revealed between the florets, but told from that species by its much larger spikelets (12-20mm rather than 8-12mm).

East Berks: Sonning, Winkfield, Windsor (**K**), Shinfield Green, Maidenhead, Twyford, Tilehurst. Formerly scattered in the Thames valley. Last seen at Three Mile Cross (**RNG**) in 1945. Atlas 2000: no records

West Berks: scattered and extinct at most of its former stations. Last seen at Wayland's Smithy [2885] in 1963. There are several records from the 1930s in **OXF** (Cothill [49], Dry Sandford [40], Upton [58], Basildon [67]) suggestive of a batch (or batches) of contaminated imported seed. Recently from the verge of the B4001 north of Childrey [356888] and east of Buckland Warren [343963]. Streatley (**RDG**) [58] in 1910. Atlas 2000: [38], [39], [40], [58]

Bromopsis benekenii (Lange) Holub *Lesser Hairy-brome*

hp 7 ↓

Schedonorus benekenii Lange

Bromus benekenii (Lange) Trimen

Zerna benekenii (Lange) Lindman

Zerna ramosa (Hudson) Lindman subsp. *benekenii* (Lange) Tzvelev

Bromopsis ramosa (Hudson) Holub subsp. *benekenii* (Lange) Tzvelev

A local rarity of beech woods on chalk. A scarce plant in Britain, confined to dry beech woods on shallow chalk, typically on steep valley sides. Hard to separate from *B. ramosa*: the lowest panicle node has > 2 branches (2 in *B. ramosa*) and the spikelet scale is glabrous (pubescent in *B. ramosa*), with the whole panicle swept to one side (pendent in *B. ramosa*). A useful field character is that the sheath is almost hairless below the ligule (long-hairy in *B. ramosa*).

East Berks: not seen by Druce. Very local and rare. Hurley (1966), and found by C.E. Hubbard in Quarry Wood (**K**) [8685] in 1971. Atlas 2000: no records

West Berks: at Streatley [58] in 1883 (**OXF**) and Frilsham [57] in 1897. In a beech wood at Harley Hill Wood, Upper Basildon [595777] in 1964. Atlas 2000: [57]

Bromopsis inermis (Leyss.) Holub *Hungarian Brome*

• h 6 ↓

Bromus inermis Leysser

Zerna inermis (Leysser) Lindman

Bromopsis inermis subsp. *inermis*

Casual seed contaminant on railway banks and waste places. Like *B. erecta* but with long rhizomes (and hence not densely tufted), and shorter awns (0-3mm rather than 3-8mm).

East Berks: not in Druce. On a railway bank in Reading (1961) (**RNG**), on waste ground at Park Place [7782] (1970). Atlas 2000: no records

West Berks: field border at Compton Beauchamp [28] in 1964, Purley [67] in 1967, Broadway, Didcot [59] in 1976-77, Lousehill Copse, Tilehurst [67] in 1987. Recently at Didcot (**OXF**), between Mowbray Road and East Hagbourne [524887] near the edge of the reservoir (1984-2001). Atlas 2000: no records

Anisantha diandra (Roth) Tutin ex Tzvelev *Great Brome*

• th 5 ↑

Bromus diandrus Roth

Anisantha gussonei (Parl.) Nevski

A beautiful, statuesque grass up to 1m tall, with big lemmas (20-36mm), long awns (25-60mm) and obviously hairy panicle branches. Told from *A. rigida* by its open, lax (not dense) panicle, and spreading (not erect) panicle branches. A grain and bird-seed alien on sandy arable land, field corners and disturbed ground.

East Berks: no records

West Berks: Faringdon pits [2894] and nursery gardens [2995] in 1963. In the verge of the A420 at Watchfield, south of Southdown Farm in 1993 [253908]. Little Coxwell [287933] in 1998 and Drayton [4694] in 2000. On set-aside land at Abingdon Common [472962], Frilford Heath [447981] and Black Horse Field [468979] in 2001. By Ardington Lane near the railway [434916] in 2002. Dominating a field corner on the chalk above Streatley in June 2002 [58]. Atlas 2000: [28], [29], [38], [39], [49]

Anisantha tectorum (L.) Nevski *Drooping Brome*

• th 5 †

Bromus tectorum L.

Zerna tectorum (L.) Lindman

West Berks: recorded by Druce from Didcot [59] in 1897 but there is no specimen.

Ceratochloa marginata (Nees ex Steud.) B.D. Jacks. *Western Brome*

• hp 6

Bromus marginatus Nees ex Steudel

Casual on waste ground and rubbish tips.

East Berks: earthworks near the M4/A33 interchange in 1999.

West Berks: field track by Pusey House [3696] in 1993 (**RNG**).

Leymus arenarius (L.) Hochst. *Lyme-grass* hp 7 †
Elymus arenarius L.

East Berks: a rare garden relic at Sutton's Nursery grounds in Reading [7473] in 1978.

Hordelymus europaeus (L.) Jess. ex Harz *Wood Barley* hs 6 ↓
Elymus europaeus L.
Hordeum sylvaticum Hudson, nom. illegit.

A scarce grass in Britain that tends to occur in small, discrete colonies on banks in beech woods and in hedgerows on chalk, often as an indicator of a medieval woodland boundary. Found beneath Elder or Hazel where light penetrates from the woodland edge. Known from *Hordeum* by the glumes fused (not free) at the base. An attractive, short-lived species, seeding readily but producing few vegetative shoots and hence rarely lasting for more than 2 or 3 years in any spot.

East Berks: local and rare. In "woods between Maidenhead and Great Marlow, about Henley and Marlow, abundantly in Bisham Woods, Quarry Wood" in Druce's time. By Bowen's time it was "local and usually in small quantity". At the top of Sham Hill [7683] above Henley (1960), Quarry Wood (1957), Park Wood (1952) Bisham. Now rare on the chalk in the northern part of the Thames valley from Remenham to Bisham. <1% (1km²). Atlas 2000: [78], [88]

West Berks: rare and declining. Near Childs Court Farm [5775] in 1963 and Harley Hill Wood [5977] in 1964. Layfields Copse [5776] in 1971 (det. C.E. Hubbard). In Radley Large Wood [5200] in 1981. Extinct in [58] where it was formerly found in Unhill Wood and [67] where it used to grow at Sulham. The surviving records for [67] are from north of the R. Thames in v.c.23 Oxfordshire. Atlas 2000: [57], [67]

[Hordeum murinum subsp. leporinum (Link) Arcang.] • th 6
Hordeum leporinum Link
Critesion murinum (L.) Á. Löve subsp. leporinum (Link) Á. Löve

No Berkshire records, but worth looking for as a casual on waste ground. It is told from subsp. *murinum* by the central floret having a stalk that shows above the glumes 0.6-1.5mm (rather than <0.6mm) and by the lemma body of the central floret being shorter than that of the lateral floret (longer in subsp. *murinum*).

[Hordeum murinum subsp. glaucum (Steudel) Tzvelev] • th 6

No Berkshire records, but worth looking for as a casual on waste ground. It is told from subsp. *murinum* by the same characters as subsp. *leporinum* (see above) and distinguished from the latter by its small (< 0.6mm) blackish anthers of the central florets, which are less than one third as long as the anthers of the lateral florets (in subsp. *leporinum* the anthers of the central florets are about as long to half as long as in the lateral florets).

Hordeum jubatum L. *Foxtail Barley* • hp 6

Rarely established temporarily on sown banks and waste places. Told by the fact that the rachis breaks up at maturity (this separates it from commercial barleys), and by the relatively long (> 30mm) glumes on the lateral spikelets that are awn-like all the way to the base (not distinctly widened at the base). The awn of the central lemma is also very long (>50mm).

East Berks: not in Druce. Wellington College [86] in 1918 (**OXF**), roundabout of Junction 11 of the M4 motorway south of Reading (**RNG**) [7168] in 1987-88. <1% (1km²). Atlas 2000: [76], [97]

West Berks: Moultsford [58] in 1928 (**OXF**), Didcot [59] in 1928 (**OXF**), Tilehurst [67] in 1924 (**RDG**), Hungerford Newtown [37] in 1982, Benham Park [46] in 1986, central reservation of the M4 motorway west of Greathouse Wood [5673] in 1987, Radley [5298] in 1987. Atlas 2000: [57], [59]

Hordeum marinum Huds. *Sea Barley* • th 6
Critesion marinum (Hudson) Á. Löve

Told from *H. murinum* by details of the glumes: they are awn-like to the base in *H. marinum*, but are broad-based with conspicuously hairy margins in *H. murinum*.

East Berks: A rare salt adventive on motorway verges as at the M4/A33 interchange south of Reading. <1% (1km²). Atlas 2000: [76]

West Berks: no records yet, but it is likely to spread along the M4 from Reading.

Eragrostis curvula (Schrad.) Nees *African Love-grass* ● hp 5 †
Poa curvula Schrader

East Berks: on the old nursery grounds of Sutton's seeds in Reading [7473] in 1978 (RNG).

Spartina pectinata Bosc ex Link *Prairie Cord-grass* ● hel 5

East Berks: planted at the pond side in the Botanic Gardens in Whiteknights Park in 1959 (RNG). Found in 1986 just south of our area at Farnborough [8757] near the R. Blackwater in Hampshire on the edge of a former gravel pit that had been used as a slurry pond; a single, huge plant spreading vegetatively. This is a prairie, not a salt marsh plant, which is long established in widely separated areas in West Galway in Ireland and Seaton Burn in Northumberland.

Echinochloa esculenta (A. Braun) H. Scholz *Japanese Millet* ● th 8
Echinochloa utilis Ohwi & Yabuno
Echibochloa frumentacea auct. non Link

A rare bird-seed alien, told by its fat, congested inflorescence branches, which form a single, lobed head.

East Berks: rare on the river bank by the M4/A33 Interchange [709702] in August 1999, found by Tony Mundell (det. Eric Clement).

Echinochloa colona (L.) Link *Shama Millet* ● th 8 †

East Berks: waste ground in Reading in 1906 (OXF) (det. C.E. Hubbard).

Setaria italica (L.) P. Beauv. *Foxtail Bristle-grass* ● th 7 ↓

Rubbish tips, an occasional casual. Bristles below each spikelet 1 to 3, spikelets disarticulating below the upper lemma, leaving both glumes and lower lemma behind.

East Berks: not in Druce. Smallmead tip (1965-71), Reading tip (1961-62), Woodley tip (1969-75). Atlas 2000: no records

West Berks: records from the 1950s and 60s from tips in Newbury [46], Thatcham [56], Didcot [59], Kennington and South Hinksey [50], Pangbourne and Theale [67]. Atlas 2000: no records

Setaria verticillata (L.) P. Beauv. *Rough Bristle-grass* ● th 7 †

Casual of rubbish tips and waste ground. Bristles below each spikelet 1 to 3, main rachis hispid rather than pubescent, leaf sheaths pubescent on the margin.

East Berks: by the railway near Maidenhead (1897). Earley allotments in 1887 (RNG). Reading (1961-65). Atlas 2000: no records

West Berks: no recent records but found pre-1897 on the railway at Newbury [46] and on waste ground at Didcot [59] and South Hinksey (OXF) [50]. Atlas 2000: no records

Setaria parviflora (Poir.) Kerguélen *Knotroot Bristle-grass* ● th 7 ↓
Setaria geniculata P. Beauv.
Panicum geniculatum Willd. non Lam.

Bristles very numerous (6-8) beneath each spikelet (but beware; see *S. viridis*, below).

East Berks: in a garden at Sidmouth Street, Reading [7272] in 1970 (det. C.E. Hubbard).

Setaria viridis (L.) P. Beauv. *Green Bristle-grass* ● th 7 ↓
Panicum viride L.

A relatively common bird-seed alien. Bristles below each spikelet 2 (1 to 3), spikelets falling whole, leaving only pedicels and bristles (beware when counting the bristles, because it is all too easy to over-count them by including bristles from neighbouring, but aborted spikelets). The rachis is hairy but the leaves are hairless (but the leaf sheaths are very hairy on their margins beneath the ligule).

Ascot: in an alleyway off Bridge Road, Sunninghill in July 2003. Locally frequent on 16 September 2003, on bare ground on the demolition site in Sunninghill [939683] with other bird-seed aliens, where the long-empty houses of Matthews Court had stood until the site was bulldozed in early 2003. In the derelict garden of the ruined Sunninghill Lodge on New Mile Road on 29 August 2004.

East Berks: by the railway near Wellington College (1896) (**OXF**). Sandhurst (1897) (**OXF**). Reading, Jealott's Hill, Cookham. Smallmead tip (1971), Woodley tip (1975), roadside at Church Farm, Finchampstead [7963] in 1975, St Andrews Hall, Reading [722727] in 1983. Bracknell [8569] waste ground in October 2003. 2% (1km²). Atlas 2000: all except [78]

West Berks: nineteenth century records from tips at Newbury [46], Didcot [59] (**OXF**), South Hinksey [50], Tilehurst Station [67] (**RNG**). More recently South Hinksey (**OXF**) [5004] in 1965 and at Didcot tip [5392] in 1969. Headland strip near Paices Wood [58216399] in 2003. Atlas 2000: [50], [67]

Setaria pumila (Poir.) Roem. & Schult. *Yellow Bristle-grass* ● th 7 ↓
Panicum pumilum Poiret
Setaria glauca auct., non (L.) P. Beauv.
Setaria lutescens Hubb.

Rare casual of waste places. There are numerous (6-8) golden coloured bristles below each spikelet. The ripe fruits are larger than in *S. parviflora* (3.0-3.3mm, not 2.0-2.5mm).

East Berks: Windsor. Not seen by Bowen. By the M4/A33 Interchange [709702] in August 1999. An isolated individual with 3 flowering stems by the Thames-side path between Old Windsor Lock and Runnymede [991741] on 15 September 2002. <1% (1km²).

West Berks: Theale tip (1957) but no specimen. In a cabbage field north of Didcot [5491] in 1999 and in the Power Station [509917] in 2004. Headland strip near Paices Wood [5821 6399] in 2003. Atlas 2000: [29], [59]

Digitaria ciliaris (Retz.) Koeler *Tropical Finger-grass* ● th 8 †

West Berks: bird-seed alien in pavement cracks near Didcot post office (**OXF**) [59] in 1976 (det. C.E. Hubbard).

Digitaria ischaemum (Schreb. ex Schweigg.) Muhl. *Smooth Finger-grass* ● th 8 †
Panicum ischaemum Schreber ex Schweigger

NVC: OV 5

East Berks: waste ground in Reading (1918).

West Berks: waste ground and rubbish at Grandpont [5105] in 1890 (**OXF**).

Digitaria sanguinalis (L.) Scop. *Hairy Finger-grass* ● th 8 †
Panicum sanguinale L.

Warm rubbish tips and disturbed ground; rare and not established.

Silwood Park: common around the greenhouses at Ashurst in July 1984. Site destroyed by building work in April 1994, six years (and great financial loss) after Ashurst was sold to property speculators to pay for the construction of the new Biology Buildings in Garden Wood.

East Berks: near Bagshot in v.c.22, Toutley Hall, Wokingham [7970] (1935), Reading (**RNG** and **RDG**) in 1935 and 1946. Found at Sidmouth Street, Reading [7272] in 1970. By the M4/A33 Interchange [709702] in August 1999. Atlas 2000: [96]

West Berks: Didcot Station [59] in 1886 (**OXF**), Tilehurst Station in 1887 (**RNG**).

Miscanthus sacchariflorus (Maxim.) Hack. ● hp 5 †

East Berks: a garden escape, established by a gravel pit near Twyford [781751] in 1973, but lost by 1988.

Sorghum bicolor (L.) Moench *Great Millet* ● th 7

A very rare bird seed alien. Told from Maize, which it greatly resembles in general habit, pre-flowering, by its lack of clasping auricles and hairless leaf sheaths. The young inflorescence forms a very tight, knobby panicle before opening out somewhat at maturity.

Ascot: just two plants on imported topsoil, spread on top of the gabion wall on the western edge of the building works at Matthews Court in Sunninghill on 22 October 2004. Growing with *Phalaris canariensis*, *Panicum miliaceum* and *Echinochloa crus-galli*.

East Berks: alien on Reading tip (1960). With a wealth of other aliens in South Reading [709702] beside the new A33 road in 31 October 1999.

West Berks: Burghfield [66] in 1890 (**OXF**), Theale tip [67] in 1897.

Sorghum halepense (L.) Pers. *Johnson-grass*
Holcus halepensis L.
Andropogon halepensis (L.) Brot.

• h 7

A tall (1.5m), tussock-forming grass with elegant dark rusty-red spreading panicles; the hairy florets are in pairs, with a large, awned hermaphrodite flower and a smaller, un-awned, male flower below. Garden escapes or bird-seed aliens.

Ascot: several large, widely separated clumps on 16 September 2003, on bare ground on the demolition site in Sunninghill [939683] where the long-empty houses of Matthews Court had stood until the site was bulldozed in early 2003. Flowering in their first growing season. The site was destroyed by building work in early 2004, but a few plants survived on the western edge in October 2004.

East Berks: on Smallmead tip in 1969 (**RNG**). Waste ground in Windsor (1999-2004).

West Berks: at Didcot [59] in 1927 (**OXF**), in a chicken-run at Harwell [4989] in 1960.

TYPHACEAE

Typha x glauca Godr. = **T. latifolia x T. angustifolia**

Intermediate in all its characters and highly sterile. There is a slight gap (< 3cm) between the male and female parts of the inflorescence. Almost certainly under-recorded.

East Berks: occasional by ponds in Windsor Great Park.

West Berks: at the edge of the R. Thames 0.5km below Moulsoford Ferry [5982] in 1985 (**OXF**).

LILIACEAE

Narthecium ossifragum (L.) Huds. *Bog Asphodel*
Anthericum ossifragum L.

hs 7 ↓

Acid bogs and peaty places. One of our most attractive and charismatic rarities. Local and decreasing on the surviving fragments of boggy heathland on the Bagshot Sands.

NVC: M 16,21,24

Ascot: “in great plenty at Sunningwells upon the peat bogs” (1762) and at Virginia Water, Windsor Great Park, “abundant near the railway at Ascot Station” (Druce), Whitmoor Bog, Rapley’s Farm. Still in a few of these places, though the great Sunningwells Bog is long since drained, the railway has been driven through it, and South Ascot built upon the remnants. Recently from Whitmoor Bog, Swinley Park and Blane’s Allotment.

East Berks: Bagshot Heath, Bulmarsh Heath (1800), abundant near Sandhurst, Broadmoor, Owls Moor, Easthampstead Plain, Finchampstead Ridges near Spout Pond, Long Moor, near Wellington College. Rare in the heaths of the Surrey and Hampshire borders, but extinct at all 5 of its former more northerly stations. Still at Edgebarrow, Wellington College Bog, Pine Hill, Broadmoor Bottom, Owlsmoor, frequent in Wishmoor Bottom where the power line crosses the stream [876626], and by the Mill Pond south of The Lookout in Bracknell Forest. Particularly good at Gormoor Valley [872658] and Gormoor Heath [869646]. <1% (1km²). Atlas 2000: [86]

West Berks: rare in the heaths of the Kennet valley from Inkpen Common [36] through Greenham [46] and Snelsmore [47] Commons, to Silchester and Wokefield Commons [66]. Extinct in the Northern Loop; it was at Wootton [40] in 1780 but was “destroyed by enclosure”. Formerly also in the catchments of the R. Pang at Cold Ash Common [56], last seen in 1897. Atlas 2000: [36], [47], [57], [66]

Asphodelus albus Mill. *White Asphodel*

• gb 3 †

Asphodelus fistulosus L. *Hollow-stemmed Asphodel*
Asphodelus tenuifolius Cav.

West Berks: a grain casual from Abingdon [49] in 1922 (**OXF**).

Colchicum autumnale L. *Meadow Saffron*

gt 9 ↓

Grassy rides through oak woods and in water meadows on calcareous clayey soils. One of the classic ancient woodland plants, but much less common with us than in neighbouring Oxfordshire, where large populations (c.10,000 blooms) still survive in Wychwood

[31]. Much reduced and now very local in west Berkshire. In the past, it was persecuted in meadows because the leaves are poisonous to cattle. Planted on many of the larger estates and sometimes found as a garden escape.

NVC: MG 5

Silwood Park: long persistent in the graveyard at Ashurst. Two clumps, c.30cm in diameter with 70 and 80 flowers respectively, at the eastern (bottom) end of the graveyard from 1979-2004. The plants are very conspicuous in leaf in the summer, because the big, bright green leaves are studiously avoided by the hoards of rabbits that inhabit the graveyard, and which graze the rest of the vegetation flat to the ground. Flowers in late summer after the leaves have died down.

East Berks: no records from natural habitats. A relic in abandoned gardens in Reading in 1999 and Cookham [8985] in September 2002. <1% (1km²). Atlas 2000: [77], [88]

West Berks: extinct at most of its former stations: water meadows in Hungerford Park [36], Inkpen [36], still in Cake Wood [3069], Wickham [37], Longworth village [39], Ashridge and Cheseridge Woods [47/57], Woolvers [48], Appleton Upper Common and Marcham [49], Wytham Wood, waste ground in Cumnor, Eynsham, Marley Wood, Tubney Wood and Chilswell Copse [40], Hampstead Norreys [57], meadows near Wittenham [59], Bagley Wood [50]. Garden escapes at Frilford [49], Lockinge [48], Little Heath [67]. Atlas 2000: [36], [47], [57], [67]

Gagea lutea (L.) Ker-Gawl. *Yellow Star-of-Bethlehem*
Ornithogalum luteum L.

● gb 3 †

Damp woods on calcareous soils. Very local and rare, but so early flowering that it might be under-recorded.

East Berks: no records

West Berks: Long Copse [473046] 12 plants in 1980, copse above South Hinksey [501031] in 1953. There are pre-1920 records from Inkpen [36], Cothill [49], Wytham, Cumnor Hurst (where Druce was confident that the plant was native), Childswell Farm and Marley Wood [40], Hawkridge [57]. I have not found the plant in any of these places, despite repeated searches in March and April.

Tulipa sylvestris L. *Wild Tulip*

● gb 4 ↓

Plantations, churchyards, parks and orchards, an introduced species usually found near villages. Local, rare and often sterile.

East Berks: no records

West Berks: Druce's understanding of the status was "as a relic of Speaker Lenthall's garden at Besilsleigh where it is still plentiful but rarely flowers". Still at Bessels Leigh [40] in Bowen's time, as sterile plants by the school drive under elm. Recently at Sparsholt [349871], next to the Village Hall in West Challow [365885], East Challow [382883], Wadley Manor [310959], Marcham [4596] and near Kennington [50] as the remains of a cottage garden. In Marlstone Park [5372] and in a wood near Kintbury [36], Balsdon and Winding Wood [36], Childrey Rectory [38], between Wantage and Kingston Lisle [38], Brightwalton [429791], Kingston Bagpuize [49]. Two large clumps were discovered in the churchyard at Coleshill [2393] in full flower on 14 April 2001; they were c.3m x 2m in March 2004.

Fritillaria meleagris L. *Fritillary*

● gb 4

One of our most attractive rarities. Massively reduced in distribution because of drainage of riverside meadows and "agricultural improvement", but still abundant in the handful of places where it still occurs. Its status is contentious: some think it a native British plant, others consider it to have been introduced as an ornamental (Stace has it as "doubtfully native"). It is difficult to accept that such an attractive plant would go unmentioned until 1736 when the first "out-of-garden" British record of Fritillary was made by John Blackstone. It grows in MG4 *Alopecurus pratensis-Sanguisorba officinalis* grassland with such associates as *Rhinanthus minor*, *Silaum silaus*, *Cardamine pratensis*, *Leontodon hispidus*, *Thalictrum flavum*, and *Serratula tinctoria*. The best time to visit Fritillary sites is in mid April in most years.

NVC: MG 4

Silwood: repeated attempts to naturalise Fritillary by planting bulbs in the wet grassland between Silwood Farm and The Lake have failed. The habitat looks ideal, but perhaps the soil is too acidic.

Ascot: very local and rare. Two plants by the fence on the eastern edge of the northern triangle of Ascot Racecourse [923699] in fruit in May 2002, just one in May 2003 and none in May 2004, in an unlikely spot for an intentional introduction. It does not grow well on the acid sandy soil, and is very uncommon as a garden plant in the district.

East Berks: the Loddon water meadows where the plant was once so abundant are now dismal cattle-grazed monocultures of Ryegrass, fertilised with up to 200kg of nitrogen/hectare/year, and utterly inhospitable to the growth of any interesting plants at all. Druce knew it from Maidenhead Thicket, in the meadows about the Loddon and St Patrick's stream in great abundance, about Bolney and below Hemerton, and in Arborfield meadows. By Bowen's time it was still frequent by the Loddon, but rare elsewhere. Stanford End (about half a million plants in 1965), Blackwater, Swallowfield, Arborfield. "This plant is still ruthlessly picked, but is in greater danger of extermination by ploughing and intensive grazing than by picking" (Bowen). Intensive search of the banks of the

R. Loddon in 1997, 1998 and 1999 found no sites other than the justly famous meadow at Stanford End [705633] where there were many thousands of flowers in 2000-04. The R. Thames sites, downstream of Borough Marsh Farm [7777] (between Wargrave and Shiplake), are all apparently extinct. Also recently as naturalised garden plants at Heath Pond and Scotlands. <1% (1km²). Atlas 2000: [76], [77], [86], [88]

West Berks: restricted to water meadows by the Thames from Coleshill [29] down to East Hagbourne Mill [58]. The wonderful population (more than 12,000 individuals in 2003) in Iffley Meadows [5203], just north of Oxford's southern by-pass, is managed by BBONT specifically for the benefit of the Fritillaries. The best of all the surviving populations by the R. Thames, about 15km upstream from Buscott at Cricklade North Meadow NNR is in Wiltshire, where there are literally millions of individuals in some years, but even this population has declined dramatically in recent years, probably as a result of protracted flooding in the exceptionally wet winter of 2000-01. This is how the west Berkshire distribution was described by Druce in 1897: "near Coleshill by the R. Cole [29] where is it called *Wild Tulip* (1897), very abundant in the meadows between Iffley and Kennington where the plants for sale in Oxford are picked [50], Thorncroft Meadow at Blewbury [5385], in meadows about Burghfield [67] and near Theale [67] in the Kennet Meadows". Bowen records the distribution in 1968 like this: "Inglesham [2098] about 1000 plants, Broadleaze Farm [2095], in quantity at Grafton Lock [273993], Bagley Wood [5002], once abundant but now nearly extinct at Sandford Lock, well-managed populations still survive in Iffley Meadow, but the plant was last seen in 1920 and destroyed by cultivation at East Hagbourne Mill [5388], on the north bank of the Kennet at Burghfield Bridge [678707]". There is still a good population at Little Wittenham reserve meadow [5693] and at Grafton Lock [275991]. Garden escapes at Longcot churchyard [2790], Frilford [4497], Wootton [4701], Wytham [4508], East Hendred [4588], Streatley [5880], Sutton Courtenay Manor [502943]. It still grows by the R. Cole at Wickstead Farm [228937], the site producing 50 or so flowers each year, but the meadow was cut before flowering in 2004, so there were no flowers that year. It is well naturalized around the pond in the garden of the Old Rectory at Burghfield [666686] 1980-2004. Locally common as naturalised garden escapes (and also deliberately planted) in the country lanes east of the Newbury bypass around Foxgrove [445650]. Atlas 2000: [29], [46], [48], [40], [58], [59], [50], [67]

Lilium martagon L. *Martagon Lily*

• gb 6

This is the purple-flowered lily. Our *Lilium* are all garden escapes. Plants in gardens are often stripped bare of their leaves by the black larvae of the lily beetle *Lilioceris lili*, whose adults are bright crimson red.

East Berks: naturalised in Foliejon Park in grass on the edge of woodland in July 1999. <1% (1km²). Atlas 2000: [97]

West Berks: by ponds at Bucklebury [57] in 1897, Kingston Bagpuize House [405976] in 1897, 1968 (**OXF**) and 2003, planted in Langley Wood [489761]. Scattered through the grounds of the Old Rectory at Burghfield [6668] in 2004. Atlas 2000: [46], [49]

Lilium pyrenaicum Gouan *Pyrenean Lily*

• gb 5

This is the orange-yellow-flowered lily.

Silwood Park: self-sown in disturbed ground near The Greenhouses, where it persisted from 1989-2000.

East Berks: in the verge at Newlands Farm in 1998 and on waste ground at Warfield Park in 1999. <1% (1km²). Atlas 2000: [76], [87], [96]

West Berks: in old gardens at Stanford Dingley [574716] in 1961 and Frilford [441974] in 1965. Atlas 2000: [49], [57]

Lilium candidum L. *Madonna Lily*

• gb 6

This is the white-flowered lily.

West Berks: in a roadside hedge at Wootton [4701] in 1965 and an old pit at Sutton Courtenay [5093] in 1977. Atlas 2000: no records

Convallaria majalis L. *Lily-of-the-valley*

grh 5

Oak and beech woods on leached soils; very local and rare as a native, but often planted in wild-looking situations and sometimes escaped from gardens. Most of our recent records are obvious garden relics.

NVC: W 8

Silwood Park: long persistent in a number of the plantation woodlands, but not found in any of the natural habitats. Cannon Wood, frequent in deep shade behind the Electricity Sub-station, in a large, ivy-filled clearing surrounded by dense holly on 20 April 1980 [9478 6840]; much increased by 2000; it now forms a solid patch measuring 15m x 10m. Drive Lawns, a few plants beneath the large Cypress. The tree was felled in 1980, and the plants, exposed to full sunlight, soon disappeared. Locally abundant in Ashurst Wood, behind the grass car park, adjacent to the road from Sunninghill Parish Church. South Lodge Wood, a patch measuring 25 m² close to the rear of South Lodge garden in 1980, still there in 2004. Under the hedge at Crossways by Silwood Road. In the woodland behind the Tennis Court. Several places in Cheapside Village. Common beneath shrubs in the wilder parts of the Japanese Garden, and abundant on the gravel steps leading up to the wooden seat facing the bridge. Locally abundant beneath *Buxus* at the bottom of the graveyard at Ashurst, in the shade of the Black Pines that border the Ashurst Orchard (1979-2004).

Ascot: Tower Hill, Englemere, Coronation Road, South Ascot, Kings Beeches, Upper Village Road and Bridge Road Sunninghill, Charters Road, Sunningdale Park, Sunningdale Church, Titness, North Ascot, South Coworth, Winkfield Lodge.

East Berks: not in Druce and certainly not native in this district. Planted and relic populations at Whitley, Wargrave churchyard, Wellington College, Bisham, Wargrave, Finchampstead churchyard, Ambarrow, St Lawrence's at Reading, (Britten's old Cliveden locality is in Buckinghamshire), Willow Lane on Wargrave Marsh. Formerly under-recorded, now in 18% (1km²). Atlas 2000: all except [78]

West Berks: as a native plant it is confined to the eastern Kennet valley (mainly [46] and [56]) and the Northern Loop [40]. Chilswell Hill [40] in 1660, and abundant in Bagley Wood [50] towards Sunningwell in 1813. Wasing Wood [5763] in the Kennet valley in 1770. Recent records are mainly of garden escapes, as at Waterleaze Copse, Clarks Gully south of Greenham Common, Newbury golf course and Aldernbridge Gully [46], Jarn Mound and Wytham chalet garden [40], Thatcham and Bucklebury Common [56], Fence Wood [57], Benyon's Enclosure and Silchester [66], Pangbourne [67]. Atlas 2000: all except [37], [38], [39], [48], [49], [58], [59], [68], [69]

Polygonatum multiflorum (L.) All. *Solomon's-seal* grh 5
Convallaria multiflora L.

A local speciality of Kennet valley oak and alder woods, where it is locally abundant as an ancient woodland indicator species. Also occasional as a garden escape, but most if not all of the garden escapes are *P. x hybridum* (see below).
NVC: W 8

Ascot: no records of the wild plant (but see *P. x hybridum* below).

East Berks: between Shinfield and Swallowfield, Finchampstead woods, Ashley Hill wood. Rare as a native plant in Maidenhead Thicket in 1969. In the valley bottom at Lindenhill Wood [812795] in 2001. In shade on the edge of the ditch between Cannon Bridge and The Priory [705641] below Beech Hill in May 2002. <1% (1km²). Atlas 2000: [76], [88]

West Berks: a real local speciality, occasional in ancient woodlands throughout the Kennet valley (south of 80), but rare or absent to the north of 80. In Oldlands Copse near West Woodhay [378629], Ashampstead Common [5875], Sutton Courtenay [59] and in many south-eastern Kennet woodlands including [4065], [4570], [4575], [5962], [5070], [5570], [6060]. Particularly good on east-facing banks in Padworth Gully [6165]. Uncommon in Moor Copse Nature Reserve [6374]. Atlas 2000: all except [28], [38], [48], [40], [59], [68], [69]

Polygonatum x hybridum Brugger *Garden Solomon's-seal* • grh 5
Polygonatum x intermedium Boreau, non Dumort.

The perianth is larger than in *P. multiflorum* (15-22mm rather than 9-15mm) and stems slightly angled rather than round. Often completely defoliated by the dark grey larvae of Solomon's-seal Sawfly, *Phymatocera aterrima*.

Silwood Park: Ashurst Lodge, 1 spike underneath the Wellingtonia on 21 April 1980. Cannon Wood, the patch by the Electricity Sub-station was seen in 1973, but not found again until 10 June 1980, when 2 shoots were seen at the west edge of the ivy by the lily-of-the-valley patch. Conservatory, below the wall to the east of the steps past the bundle-planted beech in May 1999. Cannon Crossroads, beneath the hedge at Crossways where the *Allium ursinum* grows.

Ascot: local and rare on large estates. Sunningdale Park, Ascot Place.

East Berks: recently at Spencer's Wood, Riseley, Farley Court, The Mount, Road Research Lab, Scotlands, Ashley Hill, Burchett's Green, Park Wood, Cannon Court Farm, Maidenhead, St Leonard's, and on the ramparts of Windsor Castle. 3% (1km²). Atlas 2000: all except [78]

West Berks: Faringdon [29], Lockinge [48], Frilford [49], Boar's Hill [40]. Atlas 2000: [28]

Polygonatum odoratum (Mill.) Druce *Angular Solomon's-seal* grh 6
Convallaria odorata Miller

East Berks: plantations in the Wilderness and Fox Hill at Whiteknights Park (1969-80).

Polygonatum biflorum (Walter) Elliot grh 6
Polygonatum caniculatum (Muhlenb.) Pursh.

East Berks: a garden relic established on both the Berkshire and Surrey banks of Virginia Water (RNG) in 1986. This is an enormous plant, reaching 1.8m in height on rich moist soils, as in Savill Garden.

Maianthemum bifolium (L.) F.W. Schmidt *May Lily* • grh 4

An uncommon garden plant in woodland gardens on the larger estates.

West Berks: local and rare. Well naturalized in the garden of the Old Rectory in Burghfield [666686] in April 2001.

Paris quadrifolia L. *Herb-paris* grh 5

Sheltered Oak/Ash woods, local and rare, mainly in south-west Berkshire. An ancient woodland indicator, and one of the most exciting woodland plants to find in flower, partly because it is rare, but mainly because it is so strange.
NVC: W 12

East Berks: no records

West Berks: in Middle Wood at Ashdown House [2882] and in Botley Copse [2880] nearby, Woolstone Wells [2987], Rivar Copse, under Ash in the dry valley at the western edge of the plantation (2 clumps in April 2002 of 35 and 5 stems) [350622], West Woodhay [3963], Kintbury [3866], West Fieldridge Copse [3574], Lodge Down Wood [3077], Shefford Woodlands [3673], Uffington Wood [3087], Holtwood [4164], Irish Hill [4067], locally frequent in Wytham Wood [4709], Cold Ash [5169], Radley Large Wood [5200], in a wet Ash woodland south of the canal at Theale [510662]. It is no longer found in Uffington (also called Britchcombe) Wood on White Horse Hill [3087], which has been ruined by fertilizer pollution from the adjacent arable land on the top of the down. Atlas 2000: [28], [36], [37], [38], [46], [40], [56], [50]

Ornithogalum pyrenaicum L. *Spiked Star-of-Bethlehem* gb 6
Loncomelos pyrenaicus (L.) Hrouda ex Holub

A local speciality of calcareous oak woodlands and hedge-banks in south-west Berkshire. Very restricted in its distribution, but locally frequent. This is a scarce British plant of Oolitic Limestone, Lower Chalk and Greensand, growing up to 1m tall when it flowers in mid-June. In ash woodland it is often associated with *Allium ursinum* and in some old and ancient woodlands it can vie for dominance with *Hyacinthoides non-scripta*, but it often grows in hedge-banks, roadsides, old green lanes, unimproved pasture and river banks. Seedlings are produced *en masse* in early spring, but they take several years to grow to flowering size. The plant is easiest to count in early spring, because its narrow, blue-green leaves appear before those of the bluebell with which it often grows. Its English stronghold is around Bath, but it has declined since Dutch Elm Disease because of the rank growth of *Urtica dioica* that has followed the increase in light following the death of the canopy trees, and the pulse of nutrients that resulted from decomposition of the elm trunks. The unopened flower spikes were formerly collected and sold as *Bath Asparagus*; according to White (1912) they were “very little inferior to the cultivated esculent”. Long after the bluebells have gone to seed, the slender leafless stalks rise 60cm above the dark green woodland carpet. The most usual associate is *Mercurialis perennis*, but occasional spikes are found among *Hedera helix*, *Melica uniflora*, *Glechoma hederacea*, *Stellaria holostea* or even *Pteridium aquilinum*. It is the same height as the *Poa trivialis* and, amazingly, in the speckled sunlight, they can be confused with one another.

East Berks: no records. The Ashridge Wood [8171] records are errors for the celebrated Ashridge Wood [4978] in West Berkshire (see below).

West Berks: there are 3 epicentres to the distribution: Hungerford [36], Beedon [57] and Greenham Common [56]. The plant is found in hedges around Wansdyke and Prosperous [335645] and at East Court [318645], by the side of the A338 south of Standen Manor [329660] and on Inkpen Lower Green [3564], and in woods at Lower Poughley [346728] and Rivar Copse [3161]. To the east of Beedon the plant is common in Ashridge Wood [498783]. Your first sight of it is likely to be at the crossroads of the green lanes, growing amongst ivy under a big beech tree. In the wood itself, the plant is commonest in the eastern edge, close to the grassy clearing. Sadly, the wood is spoiled by dark plantations of *Thuja plicata*. Also found on the sides of green lanes nearby, at Cheseridge Wood [507783], on the woodland edge by the track facing across to Banterwick farm at [503776], and in a wood margin below Nutfield Down at [488793]. At Greenham Common the plants are found mainly to the north of the boundary road on either side of the cattle grid [507648], and near The Round House [515651] and [520650]. Atlas 2000: [36], [37], [47], [48], [56], [57]

Ornithogalum angustifolium Boreau *Star-of-Bethlehem* • gb 5
Ornithogalum umbellatum auct., non L.

Meadows, pastures, osier holts, cornfields and grassy waste places; local and usually in very small quantity. It is an alien garden escape in Berkshire, but some authors think it is native in other parts of England (e.g. in Breckland).

Silwood Park: long-persistent in rough grassy places. Bowen had “3 clumps in Silwood Park (1972)”. These were probably the plants on North Gravel by the Header House. There is still a small colony in the triangle of grass next to the COPR greenhouse which is the last surviving fragment of North Gravel [9472 6875]. Seen every year from 20 May 1980 until 1988 when the site was cleared to make way for new greenhouses to replace those lost by the sale of Ashurst Lodge. There was no sign of any plants in May 1989 and the colony was assumed to be lost. Not so; on 20 May 1996 it was rediscovered in its original location, where there were 5 clumps in the tall grass below the new BP Greenhouse. Not seen in 2000 or 2001 and again feared lost, but there were 2 clumps with 20 or so flowers each on 9 May 2002, 7 clumps on 14 May 2003, and still 7 on 16 May 2004. In 1990 a plant flowered at the corner of the new CABI Library, next to the old Furniture Store. Also at The Greenhouses, behind the Soil Washing Room, in a small rabbit enclosure that was erected to protect turfs rescued from the building work at Crown Wood, Bracknell, containing Common Spotted Orchids and Helleborines in February 1981. Star of Bethlehem appeared (presumably from the imported turf) in 5 June 1984. Still there in 1989, but now shaded out. Numerous clumps in the circle of bulbs where the *Malus floribunda* used to grow by the

Herbaceous Border [9453 6850]; a patch of 3m x 5m in May 1994, still there in May 2003. In the Buckhurst Road Woodland behind Southwood Halls there were 3 plants in May 1999 close to the *Iris foetidissima*. In the graveyard and growing through the gravel of the church car park at Ashurst on 1 May 1999. One clump in the grassy verge of London Road below the lamp post opposite Silwood Road on 7 May 2002. A single individual in long grass, near the grave of Ann Finden (d. 1883), in the southern (older) part of the graveyard at Ashurst on 31 May 2003. A single individual in the lawn of the Buckhurst Road entrance, just north of the security hut, first seen on 15 May 2004.

Ascot: local and rare, on waste ground in Sunninghill Village in 1998. On a grave in the shady northern corner of Sunningdale churchyard in 2002. Rare in South Ascot graveyard on 26 April 2004.

East Berks: on islands in the Thames at Shiplake, at the foot of Winter Hill and in Quarry Woods, Wellington College brickfield, Remenham lane, by the river at Park Place, well naturalized near Victoria Bridge, Windsor. Leighton Park, Park Place, Arborfield, Wellington College, Easthampstead Park, Cookham, Cookham Dene, Boulter's Lock, churchyard of St Michael's Sandhurst [827619], and as a weed of flower beds in the Military Academy [8660], between Woodley and Wokingham [7870], Farley Hill [7564], Ashley Hill [8281], Sindlesham [7670], Whiteknights Park, Hopkilm Farm [7068], Rapley Lakes [8964], abandoned allotments at Woodley [7573]. 4% (1km²). Atlas 2000: all squares

West Berks: Ashbury [28], Faringdon pit and Longcot Church [29], Whitehorse Hill [38], Buckland and Longworth [39], Donnington Castle [46], East Ilsley [48], frequent on verges in Fyfield [423987], Frilford Heath and Cothill [49], Bessels Leigh, Boars Hill and Long Copse [40], Lower Radley [59], Great Wood [56], Stanford Dingley [57], Streatley [58], Little Wittenham [5693], Pingewood [6869], Sulham and Lower Basildon [6078]. Atlas 2000: all except [50], [69]

Ornithogalum nutans L. *Drooping Star-of-Bethlehem*

• gb 4 ↓

A spectacular garden plant, introduced in plantations and parks, rare. This bulky, early flowering plant has upper bracts longer than the pedicels and the anthers have broad wings, ending in projecting triangular points.

East Berks: a rare alien in Coley Park Reading in 1881 (**BM**). Wantage Hall, Reading University [7371] in 1968 (**RNG**). Atlas 2000: no records

West Berks: Wickham [37] in 1936 (**RDG**), Lockinge [4387] in 1962-76 (**LAN**), Longworth pit [39] in 1964, with pre-1920 records from Bessels Leigh [40] and Sutton Courtenay [59]. In pasture at Manor Farm Little Coxwell [282931] on 27 March 1988. On a roadside verge at Cothill [4648] in 1991. A single plant in an old orchard behind the church at West Ilsley [473824] on 14 April 2001. Local and rare below a lime tree in the rookery on the green outside Kingston Bagpuize Church [4098] on 20 April 2001. Atlas 2000: [29], [48], [49]

Scilla bifolia L. *Alpine Squill*

• gb 3

Much less common than the nodding *S. siberica* in churchyards and on banks, it has smaller, erect (not pendant) flowers and leaves sheathing the flowering stem.

West Berks: in the churchyard at Pangbourne [6376] in 1999.

Scilla bithynica Boiss. *Greek Squill*

• gb 3

In grass with other spring bulbs, but much the least common of the Squills with us.

West Berks: in short grass at Stanford Dingley churchyard in 2002 [5771].

Scilla siberica Haw. *Siberian Squill*

• gb 3

This is the most frequent of the *Scilla* with us. Occasional in churchyards and parkland throughout. The dark blue large flowers (tepals 12-16mm) face downwards (pendant), and the bracts are very small (1-2mm). Told from *Chionodoxa* by the fact that the tepals are separate all the way to the base (not fused into a tube).

Silwood Park: uncommon as relics of former mass-plantings, as in the shrub bed west of the Conservatory. Also in grass by The Greenhouses. Much less common than *Chionodoxa* in Silwood.

East Berks: typically found in graveyards as at Wargrave where it flowers amongst the snowdrops. <1% (1km²). Atlas 2000: [77], [96], [97]

West Berks: locally common, as at the streamside meadow below the church at Lockinge. Also at Little Coxwell [29], Welford Park [47], West Hendred [48], Steventon [49], Stanford Dingley [57], Streatley [58]. Atlas 2000: [29], [36], [46], [47], [48], [49], [57], [58], [67]

Scilla liliohyacinthus L. *Pyrenean Squill*

• gb 3

Known by its broad leaves (10-30mm), numerous (5-15) erect flowers, and large bracts (10-25mm).

East Berks: Cookham Rise [8884] in 1999. <1 % (1km²).

West Berks: in a plantation at Coleshill [29] in 1968 but not persistent.

Hyacinthoides italica (L.) Rothm. *Italian Bluebell*

• gb 4 †

Scilla italica L.

West Berks: a garden escape found at Wantage [48] in 1958 (OXF), but not persisting.

Hyacinthoides non-scripta (L.) Chouard ex Rothm. *Bluebell*

gb 4

Hyacinthus non-scriptus L.

Scilla non-scripta (L.) Hoffsgg. & Link

Scilla festalis Salisb.

Endymion non-scriptus (L.) Garcke

Our most spectacular woodland wildflower, carpeting the drier parts of woodlands in unbroken sheets of blue in April. Also found in thickets, coppices, hedges, bushy heaths and in grassland. Abundant and generally distributed, but uncommon in the Vale of the White Horse and least common on the chalk ridge, where the woodland ground flora tends to be dominated by *Mercurialis perennis*. It is one of the chief adornments of our woodlands, and had the distinction of being the emblem of the Botanical Society of the British Isles. "It seems the heaven upbreking through the earth". It was in full flower at the beginning of April during the very early spring of 2002. A highly charismatic wildflower, it is the plant dedicated to St George, patron saint of England, and is the envy of botanical visitors from continental Europe. Threatened by habitat destruction, eutrophication, acid rain and the depredations of alien animals like Muntjak deer (and feral Wild Boar in the not too distant future, no doubt). There is no evidence, however, that any populations of the wild plant are threatened by invasion of the garden plant (*H. non-scripta* x *H. hispanica*) or by "genetic pollution" through hybridization (with *H. hispanica*). It is distinguished from the hybrid by the racemes which are pendant (not spreading) at the apex, the anthers are cream coloured (not blue), and the perianth is tubular (i.e. parallel-sided, not bell-shaped).

NVC: OV 27; U 20; W 6,8,10,12,14-16,21,22,25

East Berks: the hazel coppice within the ancient woodlands alongside the M4 motorway in [87] are particularly good for bluebells, as at Great Wood [8576] and Billingbear [8272]. These communities have *Galium aparine* and *Stellaria holostea* amongst the bluebells, with very little bramble and no *Anemone nemorosa* or *Orchis mascula*. The woodland at Wykery Copse [8568] on the western outskirts of Bracknell has the later two species, but in different parts of the wood, away from the bluebells. In the chalk woodlands at Bisham [8584], the bluebells are restricted to the acid soils on top of the ridge. Great Wood [7365] at Swallowfield is distinguished by the extraordinary abundance of Climbing Corydalis, *Ceratocarpus claviculata*, scrambling amongst the bluebells. 54% (1km²). Atlas 2000: all squares

West Berks: widespread, but uncommon in parts of [39], [48] and [58] on the chalk ridge, but grows in the flatter summit parts of the chalk woodlands at Rivar Copse [3562] where the chalk is overlain by more acid substrates. Most abundant in the Kennet woodlands: the Oak-Hazel woodlands at Leyatt Copse, Watchcroft Copse, Patch Copse, Great Park Wood, Cymbalcroft Copse and Househill Copse, all in [3475], have spectacular shows of bluebells. Other good bluebell woods include Enborne Copse [4366], Irish Hill [4067], Eatley Copse [4577], Woolvers Borders [4680], Wickslett Copse [4480], Powder Hill Wood [4803], Saddle Copse [4605], Cakeball Copse [5065], Woolhampton [5766], Ashampstead Common [5875], Park Wood [5275], Beche Park Wood [5577], Aldworth [5579], Bennet's Wood [5878], Cheseridge Wood [5078], King's Copse [5770], Padworth Gully [6165], Beech Hill Coverts and Priory Copse [6964], James Copse [6669], and Moor Copse Nature Reserve [6374] at Sulham. The woods below Woodlands St Mary [3475] are good for bluebells, but then there is a big gap in the distribution from Lambourn [3279] north to Buscot [2497] and eastwards to Pusey [3697] where the woods are dominated by *Mercurialis perennis*. The woods from Tubney [4400] through Bessels Leigh [4602] to Bagley [5002] have some good bluebell patches. The break between the bluebell and Dog's Mercury woods in [57] occurs between Bennet's Wood, east of Aldworth [588788] and Mutton Copse, south of Streatley [586794]. Atlas 2000: all squares

Hyacinthoides non-scripta x H. hispanica

• gb 5

Scilla x patula Lam. ex DC.

A common garden escape in ditches and on banks in villages. Seldom found in deep shade. Intermediate in all characters of both parents. Fertile, and often present in the absence of both parents. Most old records of *H. hispanica* probably belong here. Told from bluebell by its blue (not white) anthers and its bell shaped (not parallel-sided) flowers.

Silwood Park: uncommon in old flower beds and shrubberies around the Manor House and at The Farm. Roadsides in Cheapside Village. In the hedge of London Road east of Knight Frank.

Ascot: Englemere Pond (1970), Sunningdale Park, Ascot Station, Charters Road, Dry Arch Road, Johnson's Pond. A riot of different colour forms (white, pink and blue) on the bank of the railway cutting below the bridge in Upper Village Road, Sunninghill. Locally abundant on railway banks at Ascot Station. Plants with pink flowers common by the stream through South Ascot.

East Berks: not in Druce or Bowen. Leighton Park (1968), building site in Reading (1982), Virginia Water (1984). Recently at Spencer's Wood, Three Mile Cross, Mill House, Randall's Farm, Limmerhill, Rivermead, Ruscombe, Gardener's Green, Sandhurst, Hare Hatch, Littlewick Green, White Waltham, Stubbings, in shade in the northern block of Maidenhead Thicket at Pinkneys Green, East Maidenhead. All along the railway, especially where gardens back onto cuttings, as at Martins Heron, Bracknell, Wokingham, Winnersh, Earley and Reading. 7% (1km²). Atlas 2000: [77], [86], [87], [88], [96]

West Berks: Didcot [59] in 1977, Boars Hill [40] in 1981, Silchester Common [66] and Inkpen common [36] in 1983, Coleshill [29] in 1987, Lewingdon [5879], Sutton Courtenay [5094] in 2002. Atlas 2000: all except [37], [47], [56], [50]

Hyacinthoides hispanica (Mill.) Rothm. *Spanish Bluebell* ● gb 5
Scilla hispanica Miller
Endymion hispanicus (Miller) Chouard
Scilla non-scripta (L.) Hoffsgg. & Link subsp. *hispanica* (Miller) Ietsw.

Roadsides and grassy waste places near houses; in small quantity. Much over-recorded in the past for the hybrid (see above). Racemes erect, anthers blue, perianth bell-shaped.

East Berks: the old records from Maidenhead, Bisham Wood, Cookham are possibly the hybrid rather than the true species.

West Berks: in an old garden in Faringdon in 2001. Newbury [46], on an abandoned allotment.

Puschkinia scilloides Adams *Striped Squill* ● gb 2

A garden escape and relic of former cultivation. Occasional in churchyards, but seldom far from habitation.

East Berks: in rough grass in the old abbey grounds at Sonning (1982-2004).

Hyacinthus orientalis L. *Hyacinth* ● gb 3

Widespread in churchyards, usually blue-flowered, but whites and pinks occur. Often planted on graves, or put out on graves as potted plants (the bulbs are sometimes planted after flowering, sometimes thrown away, where they persist quite happily on the churchyard compost heap). Sometimes on waste ground in villages as a garden outcast.

East Berks: frequent in churchyards and cemeteries. Recently at Wargrave, Sonning, Hurley, Blackwater Station and Sandhurst. <1% (1km²). Atlas 2000: [77], [86], [87], [96]

West Berks: planted on graves in churchyards throughout. Atlas 2000: [29], [36], [39], [46], [47], [40], [57], [66], [67]

Chionodoxa forbesii Baker *Glory-of-the-snow* ● gb 3
Chionodoxa luciliae sensu Baker, non Boiss.
Scilla siehii (Stapf) Speta
Scilla forbesii (Baker) Speta

This is much commoner than *C. luciliae* as a self-sown garden escape or outcast. It is told from it simply by the number of flowers: 4-12 is *C. forbesii*, 1-2 is *C. luciliae*.

East Berks: Clewer, Sonning Church, Sandhurst, Blackwater, Windsor. 2% (1km²). Atlas 2000: [77], [86], [96], [97]

West Berks: Atlas 2000: [39], [40], [56]

Chionodoxa sardensis Whittall ex Barr *Lesser Glory-of-the-snow* ● gb 3

West Berks: in a ditch at Silchester [6262] in 1978 (RNG) (det. R. Sonster).

Chionodoxa luciliae Boiss. *Boissier's Glory-of-the-snow* ● gb 3

An uncommon garden escape (see *C. forbesii*, above). None of these records is supported by specimens, so it must remain doubtful that this is a Berkshire plant.

East Berks: Whiteknights Park (1974). Atlas 2000: [86], [96]

West Berks: Longworth House [39] in 1966, in the copse on Lamborough Hill at Wootton [40] in 1977, and planted on Jarn Mound [40] in 1982. Atlas 2000: [46], [67]

Puschkinia scilloides Adams. ● gb 3

Charming small bulb with pale blue flowers; the tepal lobes are sharply acute.

Silwood Park: in the churchyard at Ashurst.

East Berks: <1% (1km²). Atlas 2000: [96]

West Berks: Faringdon [29], close to the church in 2000.

Muscari neglectum Guss. ex Ten. *Grape-hyacinth* ● gb 3

Muscari atlanticum Boiss. & Reuter

Muscari racemosum Lam. & DC non (L.) Mill.

Railway banks, very rare. Alien (but thought to be native in Suffolk and Cambridgeshire). Over recorded for *M. armeniacum* (see below). The basal fertile flowers are almost blackish-blue (not bright blue).

East Berks: Katesgrove, Reading (1831), a sandy field by Coppid Beech roundabout (1987). Atlas 2000: no records

West Berks: on a railway bank near Newbury Station [46] in 1897, Rowstock [48] and Bessels Leigh [40] in 1918, planted on Jarn Mound in 1933, weed in Childrey rectory garden [38] in 1963, Farmoor [40] in 1964 (OXF), Great Shefford [37] in 1971. Atlas 2000: [29] [38], [46]

Muscari comosum (L.) Mill. *Tassel Hyacinth* ● gb 4 †

Hyacinthus comosus L.

Sown fields, rare and transient. Long extinct.

West Berks: Bessels Leigh [40] in 1907-45, in a vetch field at Upton [58], Sutton Courtenay [59] and Streatley [58] pre-1918, Frilford [49] in 1929 (OXF), Aldworth [57] in 1933 (RDG). Atlas 2000: no records

Allium roseum L. *Rosy Garlic* ● gb 6

East Berks: recently on waste ground at Sindlesham Mill, Pollock Bridge, Westcott, West Dedworth. <1% (1km²). Atlas 2000: [77], [86], [97]

Allium neapolitanum Cirillo *Neapolitan Garlic* ● gb 4

East Berks: not in Druce or Bowen. Rare on waste ground in Reading in 1997. Sindlesham Mill and Loddon Bridge in 1999. <1% (1km²). Atlas 2000: [77]

Allium subhirsutum L. *Hairy Garlic* ● gb 5

Silwood Park: by the Met Tower, in a disturbed piece of ground by the control block of the new satellite dish; growing with *Papaver dubium* on 10 May 1990. One bulb was moved to a similar habitat by the Machinery Centre, but this did not take. Not seen since 1992.

East Berks: only recorded from Silwood Park. <1% (1km²). Atlas 2000: [96]

West Berks: found by John Killick at Sutton Pools [505944] in May 2004.

Allium moly L. *Yellow Garlic* ● gb 5

Silwood Park: Met Tower, one plant by the drain cover at the edge of the bed below the right hand window of the control block on 6 June 1994. Overgrown by *Carex muricata* in 1997 and last seen in 1998.

Ascot: waste ground at Coronation Road and Polo Club in 1997

East Berks: not in Druce or Bowen. Lambs Lane, Three Mile Cross, Arborfield, Binfield, Woodlands Park, Cookham Dean, Hog Common, Old Windsor. 2% (1km²). Atlas 2000: [76], [87], [88], [96], [97]

West Berks: Atlas 2000: [49]

Allium triquetrum L. *Three-cornered Garlic* ● gb 5

A rare garden escape in Berkshire, not naturalised to anything like the extent that it is in south-west England.

NVC: OV 24

Ascot: local and rare. King's Beeches and Coronation Road naturalized along a stretch of fencing (1999).

East Berks: not in Druce or Bowen. Bearwood, Emmbrook, Bulmershe Court, Eastheath, East Maidenhead. Locally abundant with *Ranunculus ficaria* in the lane-side at Weir Bank, Bray [913789] in April 2003. 1% (1km²). Atlas 2000: [76], [77], [86], [88], [96]

West Berks: on the path to the Thames at Duxford [3699]. Atlas 2000: [29], [39], [46]

Allium paradoxum (M. Bieb.) G. Don *Few-flowered Garlic* • gb 4
Scilla paradoxa M. Bieb.

A curious, untidy-looking species with bulbs and long-stalked flowers.

Ascot: very local and rare. A single clump of *c.*10 plants in the shady grassed verge of Whitmore Lane, opposite Dale Lodge Road at the edge of the alder swamp [954681] on 3 April 2001. Not in Silwood Park.

East Berks: locally abundant in Maidenhead Thicket in 1968. The population was thought to have been destroyed during construction of the A404(M) Maidenhead Bypass, but two good patches were found on the edge of the northern block of the woodland [854816] to the south of Pinkneys Green in April 2002. 1% (1km²). Atlas 2000: [88]

West Berks: very local and rare. Plantations near Sparsholt Church [3487] in 1977 (OXF). A single patch in the grass verge on the northern edge of Bourton [2387] on 20 April 2001. Atlas 2000: [28], [38]

Allium oleraceum L. *Field Garlic* gb 7 †

West Berks: very rare in “upland meadow” at Pennyhooks farm [2390] near Watchfield in 1895 (OXF), and on a grassy bank at Tilehurst [67] in 1955-56. These records are probably as colonists rather than natives. Extinct.

Allium nigrum L. *Broad-leaved Leek* • gb 5

West Berks: in a hedge near Aldermaston Wharf [603670] in 1960 and on the riverbank at Sutton Courtenay [5093] in 1976-77 (OXF) (det. D. McClintock).

Allium giganteum Reg. • gb 5

East Berks: recently at Bulmershe, Mill House, The Mount, Wescott, West End, Littlewick Green, Altmore, Maidens Green, Burchett's Green, Holloway, Bear's Rails. 2% (1km²). Atlas 2000: all except [78], [96]

West Berks: Atlas 2000: [36]

Allium cristophii Trautv. *Star of Persia* • gb 5

A spectacular bedding plant with huge flower heads up to 20cm across. Rare as a garden outcast.

East Berks: on waste ground at Westcott [8268] in 1998. <1% (1km²). Atlas 2000: [86]

Nectaroscordum siculum (Ucria) Lindl. *Honey Garlic* • gb 5
Allium siculum Ucria

East Berks: very local, but spectacularly naturalised on a roadside bank in Emmbrook [797697] in 1998, just north of where the road passes under the railway line. <1% (1km²). Atlas 2000: [76]

West Berks: in the grounds of the Old Rectory at Burghfield [6668] 1980-2004.

Tristagma uniflorum (Lindl.) Traub *Spring Starflower* • gb 4
Triteleia uniflora Lindley
Milla uniflora Graham
Ipheion uniflorum (Graham) Raf.

Silwood Park: in disturbed ground at The Greenhouses from 1980 to 2000, and self-sown in compacted ground on 22 March 1999.

East Berks: in grassland, close to the car park at the Dinton Pastures nature reserve [784718] in 1993. <1% (1km²). Atlas 2000: [77], [96]

West Berks: growing under ash trees by a footpath near Thrupp [518966] in 1974. Stratfield Mortimer [668640], in the churchyard in 2000. Atlas 2000: [40]

Nerine bowdenii Will. Watson • gb 10

Frequent in gardens but very rare as an outcast.

East Berks: on waste ground off Wokingham Road, Reading [735730] on 30 October 2004

Amaryllis belladonna L. *Jersey Lily*

• gb 9

Flowers at the same time of year as *Nerine*, but told from it by its stouter, almost black stems, and trumpet-shaped (not star-shaped) flowers, with less divided tepals.

Silwood Park: long persistent below the western wall of the conservatory of the Manor House, flowering in September and October, long after the leaves have withered, and before the new ones have started to appear. Much reduced since 1979 when it formed a solid monoculture, down to 10 or so plants at its minimum but recovered to 30 or so by 2000. This is the plant that shelters and protects the tender alien *Selaginella kraussiana*.

West Berks: waste ground in Newbury in 1998.

Leucojum aestivum L. *Summer Snowflake*

gb 4 ↓

Leucojum aestivum subsp. **aestivum**

Perhaps the most special of our local specialities. Berkshire's official county plant. A *Red Data Book* species of shady riverbanks and osier-holts, known locally as *Loddon Lily*. Most populations occur in willow carr or alder woodland along muddy river banks and ditches or on islets in rivers. It grows on flat, silty parts of the river bank that are flooded in winter but dry in summer. It has upright, grass-green tussocks of leaves that are often stained dirty brown by the floodwaters. Generally associated with a small number of other spring flowering species like *Arum maculatum* and *Ranunculus ficaria* and often with a rank growth of nettles and cleavers in summer. The leaves appear above ground in February or March and flowering occurs between late March and mid April (flowering as early as 28 February in the early spring of 2002); the last of the flowers hang on until the middle of May. About 70% of the entire British population occurs in just 6 sites (in the Loddon near Twyford and the Thames between Reading and Bisham). The main threats are urban development, road and bridge-building, drainage and riverbank engineering.

East Berks: its stronghold is still in the Loddon and Thames valleys to the south-east and east of Reading in [76] and [77] centred on Dinton Pastures Country Park. In Druce's time it was "locally common on the islands and banks of the Thames near the efflux of the Loddon (1809), between the Mill and the Pound at Sonning, Windsor, Henley, the beautiful snowflake can be found in masses on several of the eyots here, and below the marsh and Hambleton Lock, as altar decorations in Wargrave Church, by the Loddon in great luxuriance and beauty". Winnersh, Sandford Mill, Whistley Farm. It is still present from Park Place down to Cookham, but less abundantly than in the Loddon. Recent records from the confluence of the R. Kennet and R. Thames in Reading [730739], the Loddon Meads at Sindlesham [757696], Winnersh [766710], Loddon Bridge [768716], Sandford Mill [779729], Whistley Mill [789749], Sonning [764768], Shiplake [766773], Wargrave [783785], Aston [785845], a backwater at Hemmerton [7880], Quarry Wood [861858], south of Cookham [9080] and Windsor Racecourse [947766]. There are some good surviving fragments in 2004 to the north of Dinton Pastures, between Whistley Mill and Twyford, and in the ash/willow wood at the northern tip of Wargrave Marsh [779809]. Probably the best, and certainly the most accessible, population is in the willow/alder swamp, just north of the Upper Thames Rowing Club between Henley and Remenham, where the woodland edge comes right up to the Thames Path [767837]. 1% (1km²). Atlas 2000: [76], [77], [78], [88], [97], [98]

West Berks: in Druce's time, pre-1900, the plant was found by the Thames from Oxford [50] all the way down to Reading [67]: from between Iffley and Sandford, around Shillingford, Marcham, Tubney, Wittenham, and by the Thames between Wallingford and Reading. He writes "It is to be hoped that this great adornment of our rivers will not be too recklessly gathered. Large quantities from Shillingford have been sold in the Oxford streets recently". By Bowen's time in the 1960s, it was known only from north of Streatley [58], an island near Moulsoford viaduct [58], Clifton Hampden Bridge [59], Shillingford Bridge [59], Basildon Grotto [67] and north of Wallingford [68]. Recent records from Buscot Wharf [236978], by the R. Kennet, west of Hungerford [330701], Lashford Lane [40], the wet part of the old garden on Jarn Mound [40], Lowerhill Farm wood [59], an island in the R. Thames at Nuneham Courtenay [5397], in the flood zone adjacent to the Thames at Sutton Courtenay Manor House [501943], west of Long Wittenham [5493], [5884], [5892], Clifton Hampden bridge [548954], north of Wallingford [614908]. Atlas 2000: [28], [29], [46], [58], [59], [67], [68], [69]

Leucojum aestivum subsp. **pulchellum** (Salisb.) Briq.

• gb 3

Leucojum pulchellum Salisb.

The two sharp edges of the stem are entire throughout (not inconspicuously denticulate). Flowers in 2-4's (rather than 3-5's). Spathe much narrower 4-7mm (rather than 7-11mm). Most records of garden escapes refer to this subspecies rather than subsp. *aestivum*.

Silwood Park: an occasional garden escape. Cannon Path, naturalized by the skip at the end of TTC on shady waste ground in 1991. Still there; 3 good plants in April 1996. Buckhurst Road, scattered in the grass at the edge of the East Lodge car park of the Science Park on 15 April 1994; one plant left amongst *Lychnis coronaria* in May 2000. These plants were presumably imported with topsoil spread during landscaping of the Science Park in 1987. The Greenhouses, a single clump under the *Magnolia* behind the Bait Hut on 22 March 1999 (origin unknown).

East Berks: not in Druce or Bowen. <1% (1km²). Atlas 2000: [96]

West Berks: a single clump in Stratfield Mortimer churchyard [66].

Leucojum vernum L. *Spring Snowflake*

• gb 2

Very uncommon and always planted. Like a large snowdrop with yellowy-green patches at the tips of its tepals (and flowering at the same time in February), this is an uncommon garden plant and very uncommon garden escape (allegedly native at 2 sites in South Somerset and Dorset (Stace, 1997), but excluded from the *Red Data Book* as an introduction). Extensively naturalised in moist shade in Savill Gardens on the Surrey side of Virginia Water.

East Berks: in a wild garden at Scotlands in 1998, no doubt planted. One clump in the south-east corner of the old abbey walls at Sonning graveyard in February 2003. <1% (1km²). Atlas 2000: [77], [88]

West Berks: a rare garden outcast on roadside banks. Fine plants in lawns stretching down to the Thames at Norman Hall in Sutton Courtenay [504945], 2 February 2002. Atlas 2000: [38], [66]

Galanthus reginae-olgae Orph. *Queen Olga's Snowdrop*

• gb 11

Galanthus nivalis L. subsp. *reginae-olgae* (Orph.) Gottl.-Tann.

Told from other common snowdrops whose leaves are flat as they unfold (not inrolled) and by the striped upper surface of the leaves (*G. reginae-olgae* has a pale (glaucous) central band, flanked by dull green lateral bands).

East Berks: in the beautiful churchyard at Finchampstead in 1992. <1% (1km²).

Narcissus pseudonarcissus subsp. **obvallaris** (Salisb.) A. Fern. *Tenby Daffodil*

• gb 2

Narcissus obvallaris Salisb.

A beautiful, small flowered concolorous D1 YY with forward pointing (not upright) yellow (not pale yellow) petals that are not twisted at the base. Told from subsp. *major* (the commonest concolorous D1 YY) by shorter pedicels (less than 15mm), narrower leaves (10mm rather than 15mm), and smaller petals (to 35mm not 40mm). Always planted in Berkshire.

Ascot: rare in the churchyard at Sunningdale in February 2004

East Berks: on Ascot Racecourse, in grass in Windsor Great Park and Virginia Water. <1% (1km²).

West Berks: naturalised in grass in parkland at Buscot [29], Basildon Park [67]. On grassy banks at Jarn Mound [40].

Narcissus pseudonarcissus subsp. **pseudonarcissus** *Daffodil*

• gb 2

Narcissus gayi (Hénon) Pugsley

This is the native, wild daffodil of woods, coppices, and shady grassland. Local, but formerly plentiful over a limited area of West Berkshire; not seen recently at any of the former supposedly native sites (see below). These daffodils are so widely planted and outcast in remote-looking places that it is impossible to find sites that are certainly native. Told from the other sub-species of *N. pseudonarcissus* by the petals, which are much paler than the trumpet (scored as WY not YY), forward pointing (not spreading) and clearly twisted. There is a bewildering variety of colour variation from pure white petals and deep golden trumpets, to almost concolorous pale lemon-yellow, but they all share the relatively long slender trumpet, and the forward-pointing, twisted petals.

East Berks: there are no documented native sites. Planted or outcast in Ambarrow Wood, Arborfield, Ashley Hill Wood, by the Loddon. Hurst House, Wellington College. Commonest in the west [76], [77] and [86]; scattered elsewhere. There are recent records from woodland at Leighton Park [7371], Crowthorne [8463], Shinfield [733673], and under pines at Ambarrow Lodge [879628]. Often planted with other daffodils, as on the banks of many of the R. Thames locks (e.g. Cookham). In the churchyards at Warfield and Clewer. 15% (1km²). Atlas 2000: all squares

West Berks: Druce recorded the plant from ancient woodlands in the Kennet valley (e.g. Inholmes [3373]) and from the Northern Loop, but it is absent from the interior and extinct at most if not all of its former sites. The most celebrated of the old sites was in Powder Hill Wood at Youlbury on Boars Hill [487037]; this site is now an open birch and holly wood with good bluebell cover but no daffodils, save for a few N. 'Dutch Master' by paths and outbuildings. Wild daffodils are common in the garden of the Carmelite Priory next door, but these look planted to me. At the edge of the wood in Shellingford [3193], but probably planted. Not in the alleged native site at Lower England Copse between Appleton and Bessels Leigh (but there are a few N. 'Dutch Master' by paths). Several of the woods in the Enborne Valley [4062] to [4862] are suitable habitat, and might repay detailed scrutiny (there are four records from the Hampshire side of the river). Planted in the old garden at Jarn Mound [40]. Recent woodland records from Irish Hill [405670] where the plants were seeding, Beedon [4878], Tubney Wood and Wytham [455055], Scotland [564699], Hyde End [547637], Wasing Wood [575635], Carbins Wood [5669], Midgham Park [560760]. Occasional in parkland at Welford [4073]. In churchyards at Kintbury [36], Woodland St Mary [37], Enborne [46], Wootton [40], superb in Bucklebury and Briff Lane [57], Englefield [67]. Atlas 2000: all except [68], [69]

Ruscus aculeatus L. *Butcher's-broom*

• n 1

Woodland, plantations and hedge-banks. Possibly native in a few places on the chalk, but widely planted elsewhere in woodlands for game cover, and in hedge bottoms and neglected parts of larger gardens; sometimes long persistent. Local and uncommon.
NVC: W 14,15

Ascot: no records in [96], but occasional on the clay just to the north, as at Winkfield Lodge and Sunninghill Park [97] where it grows in the ditch near Ascot Gate.

East Berks: near Wellington College, Finchampstead Ridges, Park Place. Reading, Leighton Park, (1962), St Leonard's, Bearwood, Finchampstead Leas, Park Place, Woodside. Scattered throughout: Riseley, Whiteknights, Windsor Forest, Warren Copse [8374], Windsor Lane [9676], Wokingham [8068]. Recently by the M4 in Lower Earley, Bearwood, West Emmbrook, Finchampstead, Twyford Church, North Twyford, Ashridgewood, Broad Common, Pond Wood, Surrells Wood, Dial Close, Foliejon Park, Forest Park, Frogmore, Windsor Castle, Cookham Lock. There is an extraordinary hedgerow of *Ruscus* with oaks above the R. Blackwater at Finchampstead [8062]. Atlas 2000: all except [96]

West Berks: scattered throughout, with the classic "dotty" distribution of a planted alien or garden escape. Bourton and Compton Beauchamp [28], in hedge bottoms at Buscot weir, Little Coxwell, Great Coxwell [29], Inkpen and Hungerford [36], Kingston Lisle, Childrey and Wantage [38], Pusey and Carswell [39], Winterbourne Holt, Welford Park and Peasemore [47], Lockinge and East Ilsley [48], Tubney Wood and planted at Jarn Mound [40], Wasing Park [56], between Little Wittenham churchyard and Day's Lock [5693], Radley Large Wood and Bagley Wood [50], Mortimer West End [66], Sulham Woods, Church End Copse, Basildon and Tilehurst [67]. Atlas 2000: all except [37], [46], [58], [68], [69]

Erythronium dens-canis L. *Dog's-tooth-violet* ● gb 6

Very rare in damp grass, as a relic of cultivation.

East Berks: a single clump in the churchyard at Binfield in March 2001. <1% (1km²).

West Berks: in an old garden near Frilford [440974] in 1965. Atlas 2000: [36]

IRIDACEAE

Libertia formosa Graham *Chilean-iris* ● gb 6
Libertia chilensis (Molina) Klotzsch ex Baker, nom. nud.

Told from *Sisyrinchium* by the inner tepals, which are twice as long as the outer tepals (not roughly the same length). Flowers are white rather than pale yellow.

East Berks: a rare garden outcast. Spencer's Wood, Windsor. <1% (1km²). Atlas 2000: [76], [97]

West Berks: in the grounds of the Old Rectory at Burghfield [6668], 1979-2004.

Sisyrinchium bermudiana L. *Blue-eyed-grass* hr 7
Sisyrinchium angustifolium Miller
Sisyrinchium graminoides E. Bickn.
Sisyrinchium hibernicum Á. Löve and D. Löve

A rare casual of waste places.

East Berks: found in Wellington College grounds despite not being known in the gardens there (1874). Woodley (1933-34), Bracknell (1958). Near Rapley Farm, north of the wood [8965] in 1974. Atlas 2000: no records

West Berks: Tilehurst [67] in 1939. Atlas 2000: no records

Sisyrinchium striatum Sm. *Pale Yellow-eyed-grass* ● hr 6

After *Crocasmia* and a few of the *Iris*, this is the most common garden outcast of the Iridaceae. It grows well in gardens on the heavier soils, and survives the trauma of expulsion relatively well. It is found on banks, waste ground and in ditches in villages throughout.

Ascot: on waste ground in south Ascot (1985-2004). Not wild in Silwood Park.

East Berks: recently at Ryeish Green, Whitley, Earley, Bulmershe, Newlands Farm, Coppid Hill, Winnersh Station, Kiln Ride, Chapel Green, on old allotments in Wokingham, Popeswood, Shottesbrooke, Warfield Park, Furze Platt, Halfway House, Holyport, Summerleaze Lakes. Absent from the acid soils to the east of 90. 3% (1km²). Atlas 2000: [76], [77], [86], [87], [88]

West Berks: on waste ground at Faringdon [2895] and Newbury [4767] in July 2002, and at Steventon [4691] and Kingston Bagpuize [4098] in July 2003. Atlas 2000: [29], [36], [38], [49], [66], [68]

Iris germanica L. *Bearded Iris*

• h 5

An alien on waste ground and tips, rarely established and then only for a short time.

Silwood Park: a large patch by the Shell Building in 1980; site destroyed during redevelopment in 1993.

East Berks: a relic of cultivation by the railway near Twyford (1897). Smallmead tip (1973). Woodley, Ashenbury, East Maidenhead, Old Windsor. 1% (1km²). Atlas 2000: [77], [88], [97]

West Berks: roadsides at Baydon [27], Dry Sandford Pit and Sutton Courtenay tip [49], roadside at Farmoor [40], Blewbury [58], railway sidings at Didcot, and in abandoned allotments at South Moreton [59], South Hinksey tip [50], tip on Burghfield Common [66]. Atlas 2000: [46], [49], [40], [58], [59], [50], [66]

Iris sibirica L. *Siberian Iris*

• h 5

Told from other non-evergreen blue irises by its hollow flower stem and brown papery bracts.

Ascot: wild looking, in damp grass away from the house at Sunningdale Park in 1999.

East Berks: in a marsh near Lead Farm at Whistley Green [790730] in 1969 and a gravel pit at Sandford Mill [778732] in 1969. Recently at Lambs Lane, Spencer's Wood, Round Hill, Barkham Ride, The Mount, Bulmershe Court, Twyford, Ruscombe, Wescott, Haines Hill, West End, Cox Green, Burchett's Green, West Dedworth. 3% (1km²). Atlas 2000: all except [78]

West Berks: Atlas 2000: [38], [49]

Iris versicolor L. *Purple Iris*

• hel 6

In reed swamps, and by lakes and rivers.

NVC: A9,S8,S12,S16

East Berks: at Keephatch [8269] in 1998. <1% (1km²). Atlas 2000: [86]

Iris spuria L. *Blue Iris*

• hel 6

Told by its solid stem, wide leaves (>10mm), green bracts and flowers less than 8cm across.

Silwood Park: in grass by the Met Tower, one clump in rabbit-grazed turf, just behind the Control Room on the Pound Hill Field side of the building on 3 June 1995. The clump was 60cm in diameter in 2000, still there in 2004.

East Berks: an outcast in Sonning [7575] in 2002. <1% (1km²).

Iris reticulata M. Bieb. *Dwarf Iris*

• h 2

Commonly sold as a scented, winter-flowering pot plant in garden centres, and planted on graves in churchyards and by memorial stones in crematoria. Occasional throughout in gardens and churchyards, but never naturalised in Berkshire.

Silwood Park: rare in short grass in the graveyard of Sunninghill Parish Church at Ashurst on 1 March 1999. On the grave of George Rowe in 2001. Also in disturbed ground at Sunningdale Cemetery, opposite the Civil Service College.

East Berks: in churchyards at Winkfield, Sonning, Wargrave in February 2001, and Bearwood, Finchampstead and Arborfield in February 2003. 1% (1km²). Atlas 2000: [77], [96]

West Berks: in the roadside outside the churchyard at Little Wittenham [5693] in 1987 but not seen again since then, but still present in the churchyard in February 2004. Bourton Church [2387] and Buckland Church [3598] in 2001. In short grass at Hermitage [5173], and Norman Hall in Sutton Courtenay [504945], on 2 February 2002. Atlas 2000: [57], [59]

Iris orientalis Mill. *Turkish Iris*

• h 4

Iris ochroleuca L.

Iris spuria L. subsp. *ochroleuca* (L.) Dykes

This is the classic white-flowered iris with yellow patches on the outer tepals. An occasional garden outcast on dry banks and waste ground in towns and villages.

Ascot: on the dry bank beneath the oak trees on The Rise in Sunningdale from 1980-2000. In Sunningdale Park in 1998. In a wild part of the garden of 84 Upper Village Road, Sunninghill in May 2004.

East Berks: recently at Lambs Lane, Spencer's Wood, Three Mile Cross, Lower Earley, Warren Lodge, Central Reading, West Whitley, South Reading, The Mount, Woodley, Winnersh, Sonning, Westcott, Shottesbrooke, Maidens Green, Cookham Rise. 3% (1km²). Atlas 2000: all squares [78]

West Berks: on a grassy bank near Foxhall caravan park at Didcot [5190] in 1977 (**OXF**), but extinct by 1980. By the side of the brick bridge in Chilton railway cutting [496857] on 12 June 2004. By the orchard pond in the grounds of the Old Rectory at Burghfield [6668] in 2004. Atlas 2000: [38], [49], [68]

Iris unguicularis Poir. *Algerian Iris* • h 2

The common winter-flowering blue iris; occasional in gardens but rare as an outcast.

Silwood Park: long naturalized by the Conservatory of the Manor House as a relic of cultivation.

West Berks: in the grounds of Kingston Bagpuize House [49] in February 2002.

Crocus vernus (L.) Hill *Spring Crocus* • gt 2
Crocus purpureus
Crocus sativus L. var. vernus L.

Meadows, grasslands, churchyards, and roadsides in villages. Much the most commonly planted crocus, but very rarely seen far from houses or churches, and seldom self-sown. Leaves 4 to 8mm wide, flowers white to deep purple, perianth tube only white if the rest of the perianth is white. The stamens are bright orange, no matter what the colour of the perianth (e.g. purple or white).

Silwood Park: after *C. tommasinianus*, the second commonest *Crocus* in the churchyard at Ashurst. Also present in a pure white form with startling orange stigmas on 26 February 1999.

East Berks: in almost every churchyard, and on grassy roadside banks in most villages but much less abundant than *C. tommasinianus*. Perhaps the best display is in the churchyard at Ruscombe. Mass-planted on roadside verges in Bracknell and Wokingham. The white-flowered plants are particularly good at Sonning churchyard. 3% (1km²). Atlas 2000: all squares

West Berks: its most famous site is in Crocus Meadow nature reserve at Inkpen [370640] where it has been known since at least 1800. The site is at its best in early March, when you will see carpets of Crocus with 50 or more flowers in each metre square. Most of the blooms are purplish blue, but a scattering of the flowers are pure white. Also in woods at Shellingford [321935], Boxford [4271], Winterbourne [4571], Hyde End Mill [5563], Stanford Dingley and Bucklebury [57], Little Wittenham churchyard [567935]. Atlas 2000: all except [69]

Crocus nudiflorus Sm. *Autumn Crocus* • gt 9

This is the only common autumn-flowering crocus (but there is *Colchicum* as well, of course). Told from the rarer *C. speciosus* by its fibrous corm covering, not splitting into rings at the base.

West Berks: in a few churchyards, but not common. Faringdon in November 2000, St Nicholas Newbury in September 2001. On waste ground in Grandpont [5104] in October 2002.

Crocus sieberi J. Gay *Sieber's Crocus* • gt 4

The corm has a vertically splitting, fibrous covering, and the leaves are 1.5-2mm wide. A white or pale mauve crocus with a yellow throat, glabrous and the perianth is *not* striped on the outside.

West Berks: Atlas 2000: [49]

Crocus ancyrensis (Herb.) Maw. *Ankara Crocus* • gt 4

A beautiful pure yellow crocus (unstriped on the outside), told from *C. chrysanthus* by its vertically (not horizontally) splitting corm covering, and by the yellow (not cream) background colour of the perianth.

West Berks: planted in short grass in West Ilsley churchyard on 17 February 2001.

Crocus chrysanthus (Herb.) Herb. *Golden Crocus* • gt 4
Crocus annulatus Herbert var. chrysanthus Herbert

Perianth yellow, sometimes striped purple, the corm-covering splitting into very distinctive rings at the base (i.e. horizontally and not vertically).

Silwood Park: occasional in grass near the Tennis Court. Also in Ashurst churchyard, where it is rare; one plant on 29 January 1999.

East Berks: Wokingham, Bracknell, etc. 1% (1km²). Atlas 2000: all except [78]

West Berks: Atlas 2000: [28], [29], [36], [38], [39], [46], [47], [40], [57], [59]

Crocus x stellaris Haw. *Yellow Crocus* = **C. angustifolius x C. flavus** • gt 2

Very common in roadside mass-planting schemes in new towns like Bracknell. Also commonly planted on graves in churchyards. Much the commonest yellow crocus. Told from the other yellow spring crocuses by the corm covering splitting vertically (not into rings), and by the perianth being striped (or suffused) purple on the outside (not pure yellow).

Silwood Park: uncommon in the churchyard at Ashurst; a clump of 6 plants at the base of the churchyard wall on 29 January 1999.

Ascot: uncommon, but long persistent in rough grass in South Ascot churchyard (1971-2004).

East Berks: in almost every churchyard. In long grass at Clewer Church. Mass-planted in the central reservations of the dual carriageways on the eastern and western approaches to Bracknell. 5% (1km²). Atlas 2000: all squares

West Berks: locally frequent in churchyards throughout. In a wild garden at Wytham [473088] in 1979, Little Wittenham Church [5393] in 1987. Atlas 2000: all squares

Crocus speciosus M. Bieb. *Bieberstein's Crocus* • gt 9

Autumn-flowering, anthers yellow, perianth pale mauve to purple with darker stripes outside, corm-covering splitting into rings at the base (i.e. horizontally and not vertically).

East Berks: Whiteknights Park (1977). <1% (1km²).

West Berks: occasional in churchyards and cemeteries as at Newbury [46] and Cold Ash [56]. Atlas 2000: [39]

Crocus biflorus Mill. *Silvery Crocus* • gt 4

Perianth white, mauve or pale bluish with a pure yellow throat and very dark stripes on the outside, corm splitting into horizontal rings.

Silwood Park: very rare, by the Croquet Lawn, one plant inside the rabbit enclosure on 27 February 1999.

East Berks: <1% (1km²). Atlas 2000: [96]

West Berks: Atlas 2000: [56], [57]

Gladiolus communis L. *Eastern Gladiolus* • gt 5

Gladiolus communis subsp. **byzantinus** (Mill.) D.C.V. Douin
Gladiolus byzantinus Miller

A garden escape on waste ground and as a casual on rubbish tips.

Ascot: rare in Sunningdale Park in 1998.

East Berks: recently at Hurst, The Leas, Cockpole Green, Bray, Hog Common. <1% (1km²). Atlas 2000: [76], [77], [78], [96], [97]

West Berks: Cothill pit [4699] in 1953, Newbury tip [46] in 1958. Atlas 2000: [28], [36], [38]

Gladiolus L. '**Grandiflora Group**' • gt 7

These are the big florist's gladioli, found occasionally in a wide range of colours.

East Berks: locally abundant amongst vegetables on allotments at Bulmershe [7573] in July 2002, evidently as volunteers from former cultivation. A most incongruous sight. <1% (1km²).

Crocsmia paniculata (Klatt) Goldblatt *Aunt-Eliza* • gt 8

Antholyza paniculata Klatt

Curtonus paniculatus (Klatt) N.E. Br.

The leaves are broad (up to 8cm) and pleated like a concertina (not flat and ribbed). The garden cultivar 'Lucifer' is the commonest large, red flowered plant.

Ascot: 'Lucifer' on waste ground in Course Road, Ascot, in November 2003. In the derelict garden of the ruined Sunninghill Lodge on New Mile Road on 29 August 2004.

East Berks: in an old garden at Heathlands, St Sebastian's [8265] in 1987. Recently at Newlands Farm, Coppid Hill, Brookers Row, Old Malt House, Warfield Park, Kimbersfarm. 'Lucifer' on waste ground at Broadmoor [8463], Marsh Down [8476], Cookham Dean [8785] and Beenham Heath [8575] in July 2003. 1% (1km²). Atlas 2000: [76], [86], [87], [97]

West Berks: rare, or under-recorded. Atlas 2000: [46]

Schizostylis coccinea Backh. & Harv. *Kaffir Lily* • gt 8

A brilliant-red flowered garden plant, found rarely on waste ground.

Silwood Park: a long-persistent relic of cultivation near the Horticultural Greenhouses, flowering from mid September until cut down by winter frosts. The 2m long patch has persisted since 1979 without changing in extent.

East Berks: very local as a relic of abandoned gardens. Flowering freely in a waste building plot in Cookham village [8985] in September 2002. <1% (1km²).

AGAVACEAE

Yucca recurvifolia Salisb. *Curved-leaved Spanish-dagger* • n 7

This is a thicket-forming species with horizontal stolons, capable of regenerating new leaf rosettes following mechanical damage. It is long persistent as a garden outcast, even in deep shade.

Silwood Park: planted as a hedge on the road to the Nuclear Reactor below the Immunology Building. Repeat flowering and long-lived. The plants regenerated from apparently dead blackened stolons after a trench had been dug through the thicket in spring 2000 during cable laying operations when all the buildings on the site were linked to the fibre optic network. Also at the Squash Court, and on waste ground by The Greenhouses. Long-persistent as an outcast on the leaf dump in South Lodge Wood, despite the deep shade cast by mature beech and hornbeam trees (1996-2004).

East Berks: recently recorded as garden outcasts on rough ground at Newlands Farm, West Reading, Hogwood, Coppid Hill, Barkham Ride, West Whitley, Earley, Bulmershe, Childs Hall, Winnersh, Alder Moors, Wokingham, Brookers Row, Savernake Park, Lillibrooke Manor, Holyport, Warren Row, Furze Platt, Halfway House. Less common in the east of the area (east of 90), as in the churchyard at Clewer in 2003. 2% (1km²). Atlas 2000: [76], [77], [86], [87], [88], [96], [97]

West Berks: a rare garden outcast on waste ground in Faringdon [2895] and Newbury [4767] in July 2002.

Yucca gloriosa L. • n 7

This is the plant that forms an upright, branched trunk in old age. It grows remarkably well in Berkshire and flowers repeatedly (unlike *Agave*).

Ascot: there is a pair of very conspicuous elderly individuals on the Z-bend in Upper Village Road in Sunninghill (1979-2004).

East Berks: planted in the churchyard at Cookham. Open ground in Whitley [7270] in 2003. <1% (1km²).

Agave americana L. *Centuryplant* • n 7

This remarkable plant does not grow out of doors in Berkshire, but it is grown in pots and these are put out of doors for the summer to adorn patios and terraces. They are occasionally found as outcasts on tips once they have outgrown their pots. The species is a common alien in Mediterranean countries, where its massive flowering spikes, often held at a jaunty angle, are such a familiar feature of coastal environments.

East Berks: Reading tip in 1998, Windsor in 2001, as outcast pot plants.

Cordyline australis (G. Forst.) Endl. *Cabbage-palm* • m 7
Dracaena australis G. Forster

This is just about hardy in Berkshire. Sometimes in sheltered gardens in towns, but not yet found as an outcast.

Silwood Park: on the steep banks of London Road by Victory Fields below the Sunninghill Crossroads.

Ascot: common in the garden of The Crispin at the Peanut Roundabout [934713] since 1990. Two plants in the verge of Wells Lane in 2003. Cottage gardens by Virginia Water. Particularly common in Woodby Drive off Charters Road in Sunningdale.

East Berks: in the park by the R. Thames in Windsor. Two plants in waste ground on Bottle Lane south of Knowl Hill [828797], and a single plant in Barkham [783673] in 2003.

Phormium tenax J.R. Forst. & G. Forst. *New Zealand Flax* ● n 7

Rare garden outcasts that are not self-sown in Berkshire.

Silwood Park: on a rubbish pile on the Science Park in 1994. On The Tip in 1997.

East Berks: Reading in 1991, Maidenhead in 1999. <1% (1km²).

Phormium cookianum Le Jol. *Lesser New Zealand Flax* ● n 7
Phormium colensoi J.D. Hook.

Told from *P. tenax* by its smaller size. The leaves grow up to 2m x 7cm (not 3m x 12cm) and the perianth is 2.5-4cm (not 3-5cm).

East Berks: waste ground in Windsor in 1998. <1% (1km²).

ORCHIDACEAE

Cephalanthera damasonium (Mill.) Druce *White Helleborine* grh 5 ↓
Cephalanthera pallens Rich.
Serapias damasonium Miller

Beech woodlands on calcareous substrates; rather frequent on chalk, but rare on the coralline oolite. Absent from acid substrates.
NVC: W 12

Ascot: no records

East Berks: restricted entirely to the chalk by the Thames from Park Place to Bisham. Near Henley, Hall Pace (1804), between Henley and Marlow, in Bisham Wood abundantly, plentiful above Hurley and Bisham Abbey, Park Place coming up in the trodden woodland paths, Ashley Hill, Quarry Wood" (Druce). Now much reduced. Recently at Crazies Hill, Hurley chalk pit, Quarry Wood and Bisham Woods [8584]. <1% (1km²). Atlas 2000: [77], [78], [88]

West Berks: commonest in the chalk woods near the river in the Pang valley and in the interior around Kingston Lisle [38] and [48]. Lynch Wood [37], in a beech plantation at Crog Hill [323834], Sparsholt [3487], Pitchpole Wood [3784], Lockinge [4387], East Hendred [4588], Rowstock Hill and Grove Farm [4789], near Hanger 9 at AERE Harwell [4887], Wytham Wood [40], Hampstead Norreys [57], Ashampstead Common [5875], Aldworth [5579], Streatley [58], Unhill Wood [58], Bradfield, Tilehurst, Basildon and Sulham [67]. Atlas 2000: [38], [48], [40], [57], [58], [67]

Epipactis palustris (L.) Crantz *Marsh Helleborine* g 6 ↓
Serapias helleborine L. var. palustris L.

Marshes and bogs; very rare, and extinct in most of its former sites.
NVC: M 13,22,24; S 1

East Berks: extinct. "Peaty margins of the larger lake at Bulmarsh" (presumably South Lake [7570]). Druce was "somewhat curious that none of the peaty bogs in the south of the county should yield this plant". Not seen by Bowen. Atlas 2000: no records

West Berks: all but confined to [49] in the Northern Loop, with an outlier at Lower Lake, Elstrees school near Woolhampton [581673]. In a fen near Hatford [39], Frilford Heath golf course [442986], Hitchcopse pit [4599], Barrowfarm fen [4697], Cothill fen [4699], Abingdon [49], Foxcombe Hill and on the south side of Wytham [40]. Still in Cothill fen, in the wetland at the bottom of Dry Sandford Pit at Cothill, and on Frilford Heath golf course nearby. Atlas 2000: [49]

Epipactis purpurata Sm. *Violet Helleborine* g 8 ↓
Epipactis sessilifolia Peterm.
Epipactis violacea (Dur.-Duq.) Boreau
Epipactis helleborine (L.) Crantz purpurata (Smith) Sunderm., nom. inval. praesp.

Open woodlands of oak and beech, rare and locally extinct. Told by its greyish (not dark green) violet-tinged leaves, the lowest of which is much longer than wide. The labellum has two smoothly pleated, pinkish bosses (not rough brownish bosses) at its base.

East Berks: “There is an *Epipactis* growing in the Stokenchurch woods which is, in its young state, quite purple in both leaves and stem; it must, I suppose, be *E. purpurata*. I have seen it also in Bisham Wood” (Mill, 1843). Quarry Wood (1897). Bear Grove [806796] in 1966. Atlas 2000: no records

West Berks: scattered throughout the Kennet valley, but absent to the north of 80 with an outlier in the Northern Loop at Marley Wood [4707]. Great Park Wood [346756], Pond Close Wood, Kintbury [3565], Eastbury [3575], Mapleash Wood [4671], north of Thatcham [5209 6838 and 5215 6832], Foxhold Farm [516642], Heath End [581628], Baughurst [5862], Chapel Row [572690], Jennett’s Hill Wood [582709], northern edge of Fifty Acre Piece [6365], Tadley Common and Brocas Wood Mortimer [6363], Tilehurst [6874]. Atlas 2000: [36], [37], [46], [40], [56], [57], [66]

Epipactis helleborine (L.) Crantz *Broad-leaved Helleborine*

g 7

Epipactis latifolia

Serapias helleborine L.

Woods and bushy places. It is possible that this orchid has bucked the trend and has actually increased in abundance. Druce had it as “local and not common”, but it is certainly better described these days as locally frequent, at least on the Bagshot sands.

NVC: W 14

Silwood Park: in woods at the edge of Rush Meadow, in naturally regenerated (post-myxomatosis) oak woodland below the Playing Field at Cheapside, Nash’s Copse, under beech by Drive Lawns, under birch on Reactor Bank. In shrub beds on the Science Park; the first by TTC, perhaps introduced in the rootball of *Quercus trojana* from 1992-2000, the second in the narrow strip of birch trees in the centre of the main car park first seen in June 2000. It has self-sown into the gravel strip that edges the road between Technology Transfer and Unit F; there were 3 flowering plants here on 26 June 2001. By July 2004 it was locally frequent around *Quercus aliena* beyond the Transformer at the end of TTC. Three patches, each with 6 good spikes, growing with *Ajuga reptans* in the damp shade of Water Meadow Woods on 28 July 1999.

Ascot: very common on shaded, sandy banks and waysides about Ascot. Several of the old field records of *E. phyllanthes* and *E. leptochila* are certainly this species. The axis of the inflorescence is hairy (cf. *E. phyllanthes*) and the upper leaves are obviously spiral in their arrangement, rather than two-ranked (cf. *E. leptochila*). Told from *E. purpurata* by the 2 rough brown (not smoothly pleated pink) bosses at the base of the labellum.

East Berks: Bisham Wood, especially the continuation of it on the right of the Maidenhead Road, Park Place, railway embankment at Wellington College, Woodley, Bulmarsh Park (the type specimen), Windsor Forest. Woods, plantations and acid banks. Local and in small quantity. Wellington College, Queens Mere, Binfield, Ashley Hill, Sandhurst, Bracknell, Winkfield, Bisham Wood, Beenham Heath. Widespread, but least common in the west [76] and [77]. 7% (1km²). Atlas 2000: all except [78]

West Berks: occasional in the Kennet valley and the Northern Loop but rare to the north of 85. Atlas 2000: all except [29], [39], [48], [59], [68], [69]

Epipactis leptochila (Godfery) Godfery

g 6 ↓

Epipactis viridiflora (Hoffm.) Reichb. var. *leptochila* Godfery

Epipactis dunensis (Stephenson and T.A. Stephenson) Godfery

Epipactis cleistogama C. Thomas

Epipactis helleborine (L.) Crantz *leptochila* (Godfery) Sunderm., nom. inval. praesp.

A scarce plant in Britain, found on decomposed leaf litter in deep shade under beech woods on the chalk, where there is little or no ground cover. A long-lived perennial appearing above ground irregularly, but sometimes in great abundance (e.g. following scrub clearance). The upper leaves are obviously 2-ranked (not spirally arranged) and the pollinia crumble rather than become detached as entire units. Over-recorded for *E. helleborine*. These records are all det. D.P. Young.

East Berks: not separated by Druce. Rare in beech woods at Ashley Hill [8281] in 1966. There is a record from Bisham [8285] in 1925 (presumably Quarry Wood). Atlas 2000: no records

West Berks: in beech woodland at Grims Ditch at Streatley [5959] (**RDG**), beech wood at Upper Basildon [5976] (**RNG**), Ridge House Drive in Upper Basildon [6078] (**RDG** and **LAN**), Westfield [6078]. Atlas 2000: [56], [57], [67]

Epipactis phyllanthes G.E. Sm. *Green-flowered Helleborine*

g 7 ↓

Epipactis vectensis (Stephenson and T.A. Stephenson) Brooke and F. Rose

Epipactis pendula C. Thomas, non A.A. Eaton

Epipactis cambrensis C. Thomas

Epipactis confusa D.P. Young

Epipactis helleborine (L.) Crantz *phyllanthes* (G.E. Smith) Sunderm., nom. inval. praesp.

Epipactis helleborine (L.) Crantz subsp. *phyllanthes* (G.E. Smith) Sunderm., nom. inval.

A scarce plant in Britain, found in shade on rather more acid soils than *E. leptochila*, often associated with *Pyrola minor* in beechwoods on flint capping, and with pine/birch on the Bagshot sands. The plant is completely autogamous with partially (var. *vectensis*) or completely (var. *degenera*, var. *phyllanthes*) cleistogamous flowers. This high level of self pollination means that

individuals within populations tend to be very similar, but there are marked differences from one population to another. Separated from *E. leptochila* by its less hairy flower stem and flowers that are pendulous as soon as they open. The leaves are often shorter than the internodes, but the East Berkshire plants have leaves longer than the internodes, which can make them hard to distinguish from *E. helleborine* (but the stigmas of *E. phyllanthes* have already been self-pollinated by the time the flowers have opened).

Silwood Park: locally frequent on compacted bare ground beneath *Quercus cerris* at the north-east corner of TTC; first seen in 1990, with about 100 spikes by July 2004.

East Berks: not separated by Druce. Rare in damp oak or alder woods at Maidenhead, Quarry Wood, Cookham Dean Common (all 1962). var. *vectensis* at Tower Hill [9066] (1966-2004), roadsides at Martins Heron, Bracknell [894695], Englemere [900685] and Kings Ride [909685] (19 and 26 plants respectively in 1986). Scattered in both verges of Longhill Road, just south of Longhill Road Roundabout [895695] in July 2004, found by John Ward-Smith. Atlas 2000: [86]

West Berks: near Ginge Brook [4487], in an alder wood at Cothill [4699], Wasing [5763], under beech at Heath End [582677] and [583629], var. *vectensis* at Brimpton [5796727], by the side of Welshman's Road near Benyon's Inclosure 30 plants of var. *pendula* [6164 and [6264] in 1980 (det. Francis Rose), at Mortimer [6263], Five Oaken [6465]. Recently from west of The Ark near Wantage [391871] in 1999, and still locally frequent in a beech wood at Tadley Common and on roadsides to the south of Wasing Wood from [580627] to [585630] where it grows with *E. purpurata*. There were c. 100 plants, extending over 400m close to the B3051 at the Heath End site [5820 6274] in July 2003. Atlas 2000: [46], [56], [66]

[Epipogium aphyllum Sw. Ghost Orchid]

One of Britain's rarest and most elusive species. A *Red Data Book* species, never recorded from Berkshire, but you can see the Buckinghamshire woods where it survives today from the top of Quarry Woods. An excellent candidate for introduction at Bisham Woods (along with Military and Monkey orchids and the rarer Helleborines) now that the land is secure in the possession of the Woodland Trust.

Neottia nidus-avis (L.) Rich. *Bird's-nest Orchid*
Ophrys nidus-avis L.

g 6

Shady woods on chalk, chiefly of beech or hazel, among the decaying leaves. Local and rare.
NVC: W 12

East Berks: Druce regarded the plant as "abundant in Bisham Wood, between Henley and Marlow, and abundant in Park Place". I suspect he was getting somewhat carried away, and what he actually meant was "locally frequent". In any case, the plant is now rare in Bisham [865856], but still relatively frequent at Park Place [775818], in the steep woods above the Wargrave to Henley road. Also in Ashley Wood, Bowsey Wood, Woodley, and Hurley. Recently, the plant has been superb in Park Place woods forming majestic, cinnamon-coloured tussocks of stems in dense shade beneath beech trees on a west facing slope (1980-2004). <1% (1km²). Atlas 2000: [77], [78], [88]

West Berks: Fernham [2991], Middle Brake Wood [3298], Kintbury [3866], under hazel at Cothill fen [4699], Wytham [4708], Furze Hill [5174], Yattendon [5474], Ashampstead Common [5875], Burnett's Copse [5677], Quicks Green [5876], Radley Large Wood [5398], Sulham Woods [6474], Flobrigham's Copse [624737]. Atlas 2000: [29], [36], [39], [46], [49], [40], [57], [50], [67]

Listera ovata (L.) R. Br. *Common Twayblade*
Ophrys ovata L.

g 6

Woods, chalk grasslands, marshes and bushy places on nutrient-rich soil; rather common and generally distributed, but absent from very acid soils in south and east Berkshire.
NVC: MG 5; W 8,12

Ascot: locally frequent in damp grassland in the northern triangle of Ascot Racecourse, growing through deep litter beneath bracken with other orchids and many interesting species. The plants were particularly large in June 2001 after the wettest winter on record (2000-01). Also in grass at Brookside and by Johnson's Pond. In the damp grass verge on Breakheart Hill below the edge of the Valley Gardens on 10 June 2001. In ferruginous swamp beneath *Salix cinerea* where the Red Brook emerges from its brick conduit underneath the railway to enter Sunningwell Bog [929680]. Not in Silwood Park.

East Berks: occasional on the chalk in the western part of the Thames valley from Reading to Hurley, and along the Surrey border from Virginia Water to Sandhurst, but absent from most of the interior. On the chalk cliffs of Windsor Castle 1999-2004. Locally frequent in Park Wood at Bisham [8584]. 2% (1km²). Atlas 2000: all squares

West Berks: scattered throughout but rare in [47] and [48]; in open chalk grassland at Whitehorse Hill and Dragon Hill [3080], Crog Hill [3282] and above Compton Beauchamp [2887]. In the sand pit at Dry Sandford [468996]. Ashdown and Shrivenham [28], Northfield Covert [29], Cothill Fen [49], Wytham Wood [40], Little Wittenham Wood [59]. Atlas 2000: all except [68], [69]

Spiranthes spiralis (L.) Chevall. *Autumn Lady's-tresses*
Ophrys spiralis L.

grt 8 ↓

Gyrostachis autumnalis Dumort

Pastures, lawns and downs on acid or calcareous soils; local and rare.
NVC: CG 2

East Berks: near Remenham (1888). Sporadic and decreasing at Leighton Park (1941-55), Three Mile Cross (1918), Ashley Hill (1970). Crazies Hill. There is a carefully protected site on heathy ground in the centre of the Transport Research Laboratory [850655] at Crowthorne (1983-2004).
<1% (1km²). Atlas 2000: [86]

West Berks: mostly in the Kennet valley to the south of 75, with an outlying station at East Garston [363768]. Irish Hill and Hamstead Marshall [46], Cold Ash [56], in several lawns near Aldermaston [5964], Hawkridge House [57], Upton [58], Burghfield [66], Tilehurst [67]. Locally abundant on the ground that was the western end of the runway of Greenham Common airbase [495647], with several thousand spikes in late August 2001. Atlas 2000: [37], [38], [46], [56], [57],

Herminium monorchis (L.) R. Br. *Musk Orchid*
Ophrys monorchis L.

g 6 ↓

Chalk downs, very local and rare in west Berkshire.
NVC: CG 2

East Berks: never recorded from the Thames Valley chalk

West Berks: only on West Woodhay Downs [387618] on the chalk south of Inkpen, and on Dragons Hill to the west of the crossroads below Whitehorse Hill [300870]. The Atlas record from [28] may be an error for the Dragons Hill site, but it is possible that the plant grows on the part of Whitehorse Hill that lies in [28]; a thorough search of the hill in early July might be fruitful. There is a record from “below Rivar Copse” [3562] in 1918, and it is possible that the chalk downs on the Hampshire border directly to the south of Inkpen might repay more detailed attention. The closest Hampshire records are [3256] and [3456] near Vernham Dean, but the best nearby place to guarantee seeing Musk Orchid is at Gilbert White’s celebrated site at Noar Hill [7431] near Selbourne in north-east Hampshire. Atlas 2000: [28], [36], [38]

Platanthera chlorantha (Custer) Rchb. *Greater Butterfly-orchid*
Habenaria chloroleuca Ridley
Orchis chlorantha Custer
X Pseudanthera breadalbanensis McKean

g 5 ↓

Oak and beech woods on nutrient-rich soils. Local, chiefly in the Thames valley, in small quantity and decreasing. The big pollinia (3-4mm) are converging towards their tips (2mm and parallel in *P. bifolia*).
NVC: MG 5; W 8

East Berks: Hall Place, in beech woods above Hurley and Bisham Abbey, Bisham Wood, Park Place, Windsor Forest, Binfield, Ashley Hill, Bowsey Hill. Not seen by Bowen and probably extinct. A strong candidate for reintroduction at Bisham now that the woods are owned by the Woodland Trust. Atlas 2000: no records

West Berks: Carswell, Appleton, Wytham, Idstone Wood, Buscot, Marcham, Bagley Wood, Cothill, Radley, Tubney, Wittenham, Steventon, Norcott, Ashridge Wood, Unhill, Wolvers, Sulham, Hewins Wood, Streatley, Basildon, Compton, Fence Wood, Ashampstead, Woodhay, Weston, Riever Wood, Enborne, Lambourn Woodlands, Tilcombe, Templeton; extinct at more than half of its former sites. Now rare in the Thames and Kennet valleys, and all but absent from the interior. Recently from Coleshill [233939] and [248971], Royal Military Academy at Shrivenham [28], Eaton Wood [2696], Inkpen [36], on north-facing chalk at Cleeve Hill [333764], Middle Brake Wood [3298], Tubney Wood [4400], Stroud Copse [4407], Bushy Leaze Copse [4405], Wytham [4708], Unhill Wood [5682], Hampstead Norreys [5276], Ashampstead [5676], Little Wittenham Wood [5493], Radley Large Wood [5200], Sulham [6474], Tilehurst [6874]. Atlas 2000: [29], [36], [37], [39], [40], [57], [58], [59], [50], [67]

Platanthera bifolia (L.) Rich. *Lesser Butterfly-orchid*
Habenaria bifolia
Orchis bifolia L.

g 5 †

Oak woods, limestone grassland or acid grassland. Never more than very local and rare; now extinct.
NVC: MG 5

East Berks: near Wellington College (OXF) in 1897. Extinct.

West Berks: a single plant on Wytham Hill [40] in 1958, in Bagley Wood and Radley Large Wood [50] in 1949 and the last Berkshire record was from here in 1981. Recorded from the Military College at Shrivenham [28] in 1952. There are nineteenth century records from Sunningwell [50] (OXF) and Sulham [67]. Unhill Wood [58], last seen in 1978. Atlas 2000: no records

Anacamptis pyramidalis (L.) Rich. *Pyramidal Orchid*

grt 6

Orchis pyramidalis L.

Dry calcareous pastures, roadsides and chalk downs; locally common, but somewhat uncertain in its appearance. Rare and sporadic on acid sandy soils.

NVC: CG 3-5; OV 12

Silwood Park: very local and rare. It appeared spontaneously on Rookery Slope, where a single beautiful spike was discovered in Rosemary Setchfield's ragwort plot on 6 July 1996. There were two good spikes on 18 July 1997, but the plant has not been seen since then despite annual searches. The origin of the plant is unknown, but the nearest population is certainly several miles away (e.g. Swinley Bottom on Ascot Racecourse).

Ascot: 3 spikes in the grassy triangle at the northern end of Ascot Racecourse [923699] in July 1991. A single spike in exactly the same spot, on the western boundary of the open grassland on 26 June 2002.

East Berks: on the Berkshire side of the river near Henley, by the Henley to Maidenhead road, Park Place, Row Hill, Hennerton [7880], between Twyford and Henley, grass slopes under Quarry Wood, Hurley chalk pit, Cookham Down. Uncommon in the northern part of the Thames valley from Hurley to Cookham. Ambarrow Court [825627] in 1991. At Dinton Pastures [775723] in 2001. In the picnic area on the new dual carriageway of the A404 above Temple, and on Temple golf course. A single perfect spike in grassland near Stokes Farm on the north-eastern embankment leading to the road bridge over the A329(M) motorway [829696] on 6 July 2002. On the chalk cliff below Windsor Castle (1998-2004). 1% (1km²). Atlas 2000: [77], [86], [88], [96], [97]

West Berks: occasional on the chalk all the way from Ashbury [28] to Streatley [58] and around Inkpen [36], but rare elsewhere. Records away from the chalk at Cothill fen [462999], Drayton [4894], Wytham [4708], slag waste at Baughurst [5962], gravel pit at Brimpton [572656], Hurdle Shaw [5879], Radley gravel pits [59], South Hinksey [5004], Sulham [6474]. At the eastern end of the old runway on Greenham Common airbase [512645]; more than 100 spikes in June 2001. Locally frequent in long grass in the roadside verge at Cold Harbour [345671] on 12 June 2004. Atlas 2000: all except [29], [47], [59], [66], [68], [69]

Gymnadenia conopsea (L.) R. Br. *Fragrant Orchid*

g 6 ↓

Habenaria conopsea

Orchis conopsea L.

Gymnadenia conopsea subsp. **conopsea**

Chalk downs, limestone pastures, bogs, and marshes; locally common. Chalk grassland, occasional. This has the labellum scarcely wider than long (5-6mm long by 5.5-6.5mm wide);

NVC: CG 2,3; M 13,24

Ascot: Ted Green remembers seeing the plant in the grassy roadside verge on Breakheart Hill below the edge of Valley Gardens, but not seen recently.

East Berks: Park Place, Bisham. Hurley pit (above Frogmill Farm) [8183]. Extinct or rare on the Thames valley chalk between Remenham and Winter Hill. <1% (1km²). Atlas 2000: [88]

West Berks: on the chalk and in the Northern Loop on oolitic limestone. Alfred's Castle [2782], Badbury Hill and Little Coxwell [28], in the grassland above the chalk pit at West Woodhay Down [388618], Walbury Camp [3761], Coppington Down [3177], Whitehorse Hill, Dragon Hill and Devil's Punchbowl [38], Crog Hill [323834], Seven Barrows [3282], Pusey [3596], Furzewick Down [3984], above Letcombe Bassett [3785], Ardington [4288], Greenham Common airbase [56], Upton Lodge [5186], Lowbury [5382], Blewburton Hill [5486], Streatley Hills House [5979], Moulsoford Downs [5782], Cholsey Downs [5886]. The commonest orchid in the short, compacted turf on the flat top of The Manger at Dragon Hill [298868] on 8 June 2004. Atlas 2000: [28], [36], [37], [38], [39], [48], [49], [40], [57], [58], [67]

Gymnadenia conopsea subsp. **densiflora** (Wahlenb.) E.G. Camus, Bergon and A. Camus

g 6 ↓

Orchis conopsea L. var. *densiflora* Wahlenb.

This has the labellum much wider than long (3.5-4mm long by 6.5-7mm wide) and lives in cooler, wetter habitats like base-rich fens and north-facing chalk grasslands.

West Berks: Frilford fen [4497], Cothill fen [4699], Wootton fen [4701], Wytham Meads [4709] Atlas 2000: [49], [40]

X *Dactyloдения st-quintinii* (Godfery) J.DuVign = ***Gymnadenia conopsea* x *Dactylorhiza fuchsii***

X *Orchigymnadenia st-quintinii* Godfery

Not uncommon where the parents grow together.

West Berks: Cothill fen [49] in 1933 and West Woodhay Down [36] in 1984. Frequent in the grassland above the chalk pit at West Woodhay Down [388618] on 12 June 2004 with both parents and *Ophrys apifera*.

Coeloglossum viride (L.) Hartm. *Frog Orchid*

g 6 ↓

Satyrium viride L.
Habernaria viridis R. Br.

Chalk downs, pastures, heaths; occasional and declining, restricted to west Berkshire. Very intolerant of grassland fertilisation, and soon overrun by perennial grasses under high intensity management. Modern molecular evidence suggests that this species should be placed in the genus *Dactylorhiza* (Bateman *et al.*, 1997).

NVC: CG 2,3; MG 5

East Berks: never recorded from the east Berkshire chalk, nor from the adjacent chalk in Oxfordshire.

West Berks: Ashbury, Idstone, Whitehorse Hill, on the northern slope of Dragons Hill, Cumnor, Sandford lock, Sparsholt, Wantage, Bagley Wood, in various places along Ridgeway, Radley, Blewburton, Chilton, Lowbury, Lockinge Downs, Letcombe Castle, Uffington, Ilsley Downs, Unwell Downs, Moulsoford Downs, King Standing Hill, Streatley, Shaw, Letcombe, Lambourn Downs, Gibbet Hill. Now greatly reduced in both distribution and abundance. Still found on the chalk between Ashbury [28] and Streatley [58], and on the Hampshire border to the south of Inkpen, but probably extinct in the Northern Loop. The most recent records are from Hackpen Hill, Crowhole Bottom [356847], West Woodhay Down [388618], Dragons Hill [300870], Churn [5284], Aston Upton Down [5483] and Lower Chance Farm on the Ridgeway [58] in 2002. Atlas 2000: [36], [37], [38], [58]

X *Dactyloglossum mixtum* (Asch. & Graebn.) Rauschert
= ***Coeloglossum viride* x *Dactylorhiza fuchsii***

X *Orchicoeloglossum mixtum* Asch. & Graebner

Has the colour of the *Dactylorhiza* parent variously tinged and overlaid by green. The habit, leaves and perianth are all variously intermediate.

West Berks: Whitehorse Hill [3086] (det. V.S. Summerhayes) and still there in 2004, Devil's Punchbowl [355850], Moulsoford Down [5782].

X *Dactyloglossum conigerum* (Norman) Rauschert
= ***Coeloglossum viride* x *Dactylorhiza maculata***

Coeloglossum x *conigerum* J. Norman

Orchis x *mixta* Domin, non Retz.

Orchis x *dominiana* Camus, Bergon and A. Camus

X *Dactyloglossum dominianum* (Camus, Bergon and A. Camus) Soó

West Berks: Lambourn [3280] in 1937 (RDG) (det. P.F. Hunt).

Dactylorhiza fuchsii (Druce) Soó *Common Spotted-orchid*

grt 6

Orchis fuchsii Druce

Dactylorhiza fuchsii (Druce) Vermeulen

Woods, thickets, meadows, heaths and marshes; common and generally distributed. Woodland rides, nutrient-rich grassland (wet or dry) and flushed heaths. Much the commonest orchid of chalk grassland.

NVC: CG 2,3; M 9,10,13,22,24; MG 9; OV 26

Silwood Park: local, rare and sporadic. Nash's Field, in wet grassland by the Kissing Gate; never more than two flowering spikes in any year since 1980; not seen since 1986 as the site has dried out. Heronsbrook Meadow, one stunted plant on the track next to Pond Field on 17 June 1984. One very dense spike, right in the centre of the field on 12 June 1987. Not seen since (but the hybrids persist along the Virginia Water Lodge side of the field; see below). Pond Field, one spike in *Juncus acutiflorus* wet grassland next to the Southern Marsh Orchid in June 1983; one spike again in 1984 and on 12 June 1987 but not seen since. One spike by the Heron's Brook track 10 June 1995; one excellent spike in almost the same spot; 20 June 1996. Nash's Slope, on the top of the ridge, between the broom patch and The Elms; one spike on 12 July 1980 and again on 15 June 1984. A single spike in bush-hogged ground at the north-east corner of Nash's Slope in June 2004. Elm Slope, planted in 1981 in a small rabbit enclosure on the south facing side of The Hedgerow, facing the Ashurst Path. Flowered well in 1982 to 1985. Not seen since. Garrison Ridge, one good spike in the bramble patch just below William Penney; 25 June 1985. Garden Wood, planted in beech woodland in February 1981 with material rescued from the housing development at Martins Heron in Crown Wood, Bracknell. Well established in the clearing, with 25 plants in flower 7 July 1983. Five plants flowering in the tractor track on the edge of South Gravel on 1 July 1985. Some plants were dug up and moved in March 1986 but the colony was destroyed during construction of the Science Park. Japanese Garden, self-sown on the pond margins; one plant in grass by the dwarf bamboo on 21 June 1983 had increased to 5 spikes in 1985. A further plant appeared beneath *Cephalotaxus* at the eastern end of the garden in 1984. The Greenhouses, in a small rabbit enclosure, erected to protect turves containing orchids brought in from Crown Wood, Bracknell, in February 1981. Still there in 1989 but not seen since. Silwood Farm, 2 spikes in grass by the weeping willow in June 2000, 2001 and 2002. Rush Meadow, a single spike in June 2002 on the western edge near the willows.

Ascot: Swinley Park, roadsides by The Orangery, A322/A332 roundabout, Tower Hill, Woodlands Ride, Heatherwood Hospital, Ascot Heath, Charters Road, Sunningdale Park, Johnson's Pond, Breakheart Hill, Brookside, Virginia Water. Very common, along

with *D. x grandis*, in the northern triangle of Ascot Heath Racecourse by Swinley Bottom, growing with unusual associates like *Pulicaria dysenterica* and *Scrophularia auriculata* (particularly abundant in June 2002).

East Berks: scattered throughout, but typically at low densities as at Beenham's Heath. Locally abundant with *Vicia sepium* by the upper lake at Park Place in 2004. Uncommon on heathy rides in pine plantations in Bracknell Forest. One of the most accessible populations is in the unmown grass by the tea shop in California Country Park. 8% (1km²). Atlas 2000: all squares

West Berks: much the commonest orchid in chalk grassland as on White Horse Hill [2986], Dragon Hill [3087], or West Woodhay Down [3861], Cumnor Hurst [4704], Radley gravel pits [5297]. Several substantial clumps in the west-bound verge of the M4 motorway between Reading and Newbury, as at [6073] in June 2004. Atlas 2000: all except [68], [69]

Dactylorhiza x kernerorum (Soó) Soó = **D. fuchsii x D. incarnata**

Orchis x kernerorum Soó

Orchis x engadinensis Cif. & Giacom., nom. nud.

Dactylorhiza x engadinensis (Cif. & Giacom.) Soó, nom. inval.

Dactylorhiza x variabilis (J. Heslop-Harrison) Soó

West Berks: Midgham [56] in 1892 (**BM**) and Cumnor [40] in 1938 (**BM**) (both det. P.F. Hunt).

Dactylorhiza x grandis (Druce) P.F. Hunt = **D. fuchsii x D. praetermissa**

Orchis x grandis Druce

Dactylorhiza x mortonii (Druce) Soó

According to Stace (1997) this is the commonest hybrid orchid in southern England.

Silwood Park: massive plants in Heronsbrook Meadow in tall damp grass adjacent to the track from Pond Field to Virginia Water Lodge; 7 big spikes with narrow spotted leaves on 26 June 2000. In the peak year of 2002, there were 38 big plants with spotted leaves, including 13 along the fence of the track to Virginia Water Lodge and 20 in the big central patch of orchids on 18 June. On 10 June 2004, there was total of 39 plants in Heronsbrook Meadow, most of them along the Virginia Water Lodge track edge.

Ascot: locally abundant in wet grass at the northern triangle of Ascot Racecourse (1980-2004); much bigger than either parent.

West Berks: Freeman's Marsh at Hungerford [3369], Buckland Park and Pusey marsh [39], Snelsmore Common [47], Frilford, Cothill fen, Dry Sandford Pit and Abingdon [49], Wytham meads [40], AWRE Aldermaston and Midgham Park [56], Didcot [58], by the Ridgeway [5282], Barrow Hills fen [5198], Radley gravel pits [5297].

Dactylorhiza maculata (L.) Soó *Heath Spotted-orchid*

grt 6

Orchis maculata L.

Dactylorhiza maculata (L.) Vermeulen

Dactylorhiza maculata subsp. **ericetorum** (E.F. Linton) P.F. Hunt and Summerh.

Orchis maculata L. subsp. ericetorum E.F. Linton

Acid bogs, heaths and damp, acid grassland; local in south Berkshire and absent from calcareous soils.

NVC: M 15,16,24

Ascot: very rare at Tower Hill. I have never seen it there.

East Berks: Long Moor. Heath Pool, Wellington College, Surrells Wood, Broadmoor, Easthampstead. Superb in the bog below Broadmoor Hospital for the Criminally Insane in 1999. <1% (1km²). Atlas 2000: [76], [77], [86]

West Berks: in two centres, on the Northern Loop, and in the heaths of the south Kennet. Inkpen Common [3864], Southmoor [398977], Enborne [4365], Greenham Common [46], Snelsmore Common [47], Tubney Wood [4400], Hurst Hill [4704], Hermitage [5173], Baughurst [5862], Bucklebury Common [5669], AWRE Aldermaston [593627], Silchester Common [6162]. Atlas 2000: [36], [39], [46], [47], [49], [56], [57], [66]

Dactylorhiza x carnea (E.G. Camus) Soó = **D. maculata x D. incarnata**

Orchis x carnea Camus

Dactylorhiza x maculatiformis (Rouy) Borsos and Soó

Dactylorhiza x claudiopolitana (Simonkai) Borsos and Soó

Dactylorhiza x ampolai Hautzinger

East Berks: Sandhurst [8065] in 1896 (**OXF**) (det. P.F. Hunt).

West Berks: Frilford [4497] in 1915 (**OXF**) (det. P.F. Hunt).

Dactylorhiza incarnata (L.) Soó *Early Marsh-orchid*

grt 5 ↓

Orchis incarnata L.

Dactylorhiza incarnata (L.) Vermeulen
Dactylorhiza incarnata subsp. ***incarnata***
Orchis strictifolia Opiz

Marshes, fens and wet meadows on nutrient-rich soils; very local but plentiful where it occurs.
 NVC: M 9,13,22,24

East Berks: near Earley by the railway, on Coleman's Moor. Thought to be extinct by Bowen, but refound (and det.) by C.J. Hora in 1989 in marshy ground south of Folly Court, Wokingham [794674-5]. One large spike (35cm tall) in the eastern arm of the sunken centre of the Running Horse Roundabout [883690] in Bracknell on 2 June 2003 and 24 May 2004 (det. R. Bateman), origin unknown but possibly sown as part of a wildflower mix during the original landscaping of the roundabout in 1996. John Ward-Smith found 3 plants in the meadow at Lily Hill Park [885694] amongst *c. 100 D. fuchsii* on 9 June 2004. <1% (1km²). Atlas 2000: [76]

West Berks: confined to the Northern Loop, the R. Cole and the Kennet valley (where it is least rare in the western reaches). Tuckmill Meadow and Royal Military College of Science at Shrivenham [28], Watchfield [2490], Pennyhooks Farm [2390], Hungerford Meads [3368], Kintbury [3866], Pusey [3596], in a rough field by the canal east of Marsh Benham [4267], Boxford Church [4271], Frilford [4497], Cothill Fen and Dry Sandford Pit [4699], Bessels Leigh [4501], Farmoor [4406], Cumnor [4604], Wytham Meads [4709], Goldfinch Bottom [5064], water meadows at Brimpton [5663], Hermitage [5173], Little Wittenham reserve meadow, Radley gravel pits [5297], Radley Meads [5398], Kennington [5202], Nunhide Lane [6472]. Atlas 2000: [28], [29], [36], [37], [39], [46], [47], [49], [40], [56], [57], [50], [67]

Dactylorhiza praetermissa (Druce) Soó *Southern Marsh-orchid* grt 6
Orchis latifolia L.
Orchis praetermissa Druce
Orchis pardalina Pugsley

Fens, marshes, bogs, wet meadows, and osier holts; locally common.
 NVC: M 13,22

Silwood Park: without doubt, our most spectacular native plant. Locally frequent in damp grassland in Heronsbrook Meadow. There were a dozen good spikes in an arc, 15m from the gate on 28 June 1984. These particular plants were not seen again for a long time (but see below). On 12 June 1987 a thorough search of the whole field revealed a total of 20 spikes, mostly confined to the edges where the turf was somewhat shorter. Mr Brown's Horse, which had kept the turf close-grazed for many years, died in 1987, and the sward subsequently became rank and overgrown with marsh thistles. No orchids were found in June 1989 or 1990, the two very dry years, or in 1991. The field was absolutely full of ragwort in 1991 and 1992. A good patch of 20 big spikes in the middle of the field, but not where they had been in previous years, on 5 June 1993. On 17 June 1994 there were 62 individuals including 5 enormous spikes in the central patch, with a few individuals along the edge of the Pond Field track. There were 40 plants in the central patch on 10 June 1995, and 2 in the top corner by Upper Pond Field. On 20 June 1996 there were 50 spikes in the central patch and 2 plants in the original location by the entrance gate. There was just one spike in the rushes by the gate, and none in the centre of the field on 20 June 1998. The record year was 2000, when a comprehensive count of the whole field, carried out on 26 June 2000, revealed 133 big spikes. The large individuals were the biggest ever seen; a combination of a wet spring and relatively high myxomatosis meant low rabbit grazing and tall wet grass. Still quite abundant in June 2001. The population began to flower on 28 May 2002 after a very early spring. Following mowing and carting off all the biomass in winter 2001-02, the population broke all records in June 2002; there were 344 spikes (of which 38 had spotted leaves) with 157 spikes in the central clump. The population was a little lower in June 2003, but had increased again to break the record in 10 June 2004 with 452 spikes plus 39 spotted-leaved plants. On the same date there were an extra 5 spikes (plus one spotted) in unmown grass between Heronsbrook Meadow and Virginia Water Lodge. Upper Pond Field, a single superb spike on 4 July 1980 in the mowed part of the grassland below The Elms. Growing with *Stellaria graminea*, *Cirsium palustre* and *Ranunculus repens*. The first flowers in the following year were out on 17 June 1983, on a rabbit run 20m south of the Heronsbrook Meadow track, in line with the willow bush. Maximum flowering: 2 large and 7 smaller spikes on 21 June 1983. In the next year, the largest spike had its inflorescence attacked and spoiled by caterpillars. Two better spikes, closer to the track were photographed on 17 June 1984. Five good spikes on 25 June 1985 were subsequently felled by rabbits. Following several years in which the site was not mown (Phil Hulme's PhD study on small mammals required that the rosebay willowherb was left as cover), the population has declined (or at least stopped flowering). On 12 June 1987 there was one good spike in a new position, at the other end of the slope, close to The Pond, but there were no flowers at the main site. No flowers were found in either position in 1988 (very wet) or 1989 and 1990 (exceptionally dry). None seen until 15 June 1994 when one small plant was found. Two isolated spikes on 10 June 1995, but none in 1996 or since. The rosebay willowherb had completely disappeared by June 2001 as a result of repeated mowing.

Ascot: superb, along with their hybrids and *D. fuchsii* in the northern triangle of Ascot Racecourse; many hundreds of plants in most years. No other records.

East Berks: Blackwater meadows, Bulmarsh, Crazy Hill, Thames meadows at Bolney, Coleman's Moor, Hurley, Sandhurst. Local, confined to river valleys and absent from most of the area. Coleman's Moor (1890, 1921, 1953), Wellington College. Crowthorne [8463], Long Moor [7865], Owlsmoor [846631] in 1982 and 2004. 1% (1km²). Atlas 2000: all except [87], [88]

West Berks: occasional in the Kennet valley and the Northern Loop, rare and scattered elsewhere and absent from large areas of the interior (north of 75 and south of 95). Beckett Park [2589], Woolstone [2987], Hungerford Meads [3268] and Park [373675],

Eddington Marsh [3468], Coppington down [3177], Leverton [3370], Shefford Meads [3875], in chalk grassland at Devil's Punchbowl [3585], Pusey [3596], Greenham [4765], Rack Marsh at Bagnor [453693], Morewood House [419668], Newbury [4766], Welford [4173], Kimbers Field [453713], Boxford Church [4271], Frilford [4497], Barrow Farm Fen [4697], Cothill [4699], Marcham [4596], Wytham Meads [4709], Farmoor [4406], gravel pits at Brimpton [5665], Woolhampton [5766], Stanford Dingley [5771], Barrow Hills [5198], Didcot [512910], Thrupp [5197], Daisy Bank [514980], Radley gravel pits [5297], South Hinksey [5004], Aldermaston Soke [6163], Nunhide Lane [6472], Sulham [6474], Tilehurst Station [6775]. Atlas 2000: all except [38], [48], [58], [68], [69]

Dactylorhiza traunsteineri (Saut. ex Rchb.) Soó *Narrow-leaved Marsh-orchid* grt 5 ↓

Orchis traunsteineri Sauter ex Reichb.

Dactylorchis traunsteinerioides (Pugsley) Vermeulen

Dactylorchis traunsteineri (Sauter ex Reichb.) Vermeulen

Fens in north-west Berkshire, very local and rare.

NVC: M 13

West Berks: Tubney [4398] in 1882 (**BM**) (det P.F. Hunt). Cothill fen [460997] where it has been collected repeatedly (and quite unnecessarily) since 1954 (**BM**, **OXF**, **LAN**, plus 4 in **RNG**), Dry Sandford Pit (6 plants in 1960) (**RNG**), Frilford Heath golf course [442984] (since 1961, with 50 plants in 1979), Barrow Hills fen [516983] (20 plants in 1979). Also recorded from Abbey Fishponds [59] in 1985 without a specimen.

Orchis mascula (L.) L. *Early-purple Orchid* grt 4 ↓

Orchis morio L. var. *mascula* L.

Open oak woods, bushy places, meadows, heaths and chalk downs. "Rather common and widely distributed in every parish where there is woodland. Begins to flower a fortnight before *O. morio*" (Druce). By Bowen's time it was "local but widespread; mainly in small quantity". Its presence distinguishes all of the better surviving fragments of ancient woodland. Sadly uncommon, and now much reduced from its former abundance by such unsympathetic woodland management practices as pheasant rearing.

NVC: W 8

Ascot: no records. It is odd that the ancient woodlands in Windsor Great Park do not support this species.

East Berks: absent from large areas, and persisting in only a few undisturbed ancient woodlands as at New England Wood [855751], Ockwells Manor Wood [874785], Bisham Wood [8585] and Wykery Copse on the western edge of industrial Bracknell [8568]. 1% (1km²). Atlas 2000: all except [96], [97]

West Berks: occasional in the Thames and Kennet valleys but rare in the interior (north of 80 and south of 95). Stainswick Farm [28], Coleshill, Buscot House, Longcot, Little Coxwell, Camden Farm and Faringdon [29], Irish Hill [36], Britchcombe Farm and at [329895], Littleworth and Barcote manor [39]. Locally frequent in Moor Copse Nature Reserve [6374]. Discovered in Kintbury cemetery [36] in 2001. Atlas 2000: all except [58], [68], [69]

Orchis morio L. *Green-winged Orchid* grt 5 ↓

Meadows, pastures, chalk downs, heaths and bogs. Locally abundant in Druce's time but "uncommon and decreasing owing to ploughing and early grazing" by Bowen's time. Now local and rare. Molecular studies indicate that it may be more appropriately placed in the genus *Anacamptis* (Bateman *et al.*, 1997).

NVC: MG 5

Silwood Park: Cemetery Field, in rabbit-grazed turf. A single spike in full flower on 13 May 1991. Found by Chris Thomas during the first season of a ragwort experiment in the area between the bottom of the graveyard and the edge of Rookery Copse. Not seen since. The grass is much longer now, since the erection of a fence in 1991 excluded the grazing horses; the orchid has not been seen again. The fence was removed in 2003, but by then the site had become densely overgrown by a bramble thicket.

Ascot: no other records.

East Berks: Meadows near Wellington College, Park Place, Culham Court, Cranbourne Chase, Bulmarsh, Bracknell, Long Moor, Farley Hill, Stubbing's Heath, Hurley, Temple golf course, Cookham, Shinfield Grange, Arborfield, Wellington College, Wokingham, Hurley golf course, St Leonard's. Woodley (1919) (**RDG**). Scattered throughout, but extinct at several of its former sites. 1% (1km²). Atlas 2000: all except [78], [87]

West Berks: scattered throughout but extinct at most of its former sites on the chalk, with few modern records north of 75 or south of 90. Above Compton Beauchamp [2887], Inkpen [3562], Wickham [3971], Croker's Hole [322820], Pucketty Farm [3198], Charney Bassett [3794], Wash Common [4564], Newbury [4766], Frilford [4497], Farmoor [4406], Bessels Leigh [4501], Hill End Camp at Wytham [4505], Beenham House [5868], Aldermaston [5965], Frilsham [5373], Furze Hill [5174], Yattendon [5474], Cholsey [5886], Didcot [5190], Radley [5398], AWRE Aldermaston [6063], Burghfield Common [6566], Sulham [6474]. Atlas 2000: all except [29], [47], [48], [50], [67], [68], [69]

Orchis ustulata L. *Burnt Orchid*

grt 5 ↓

A truly charismatic orchid, symbol of all that is best about unspoilt chalk grassland. Rare and sporadic, flowering unpredictably. This is a scarce plant in Britain that grows in short, well grazed chalk downland with plants like *Anthyllis vulneraria*, *Gentianella amarella*, *Polygala calcarea*, *Sanguisorba minor*, *Primula veris* and *Rhinanthus minor*. It takes 10 years or so from germination to first flowering. Declined through ploughing, herbicide and fertilizer application, and cessation of grazing. It occurs in North Hampshire in [45] and [55], in Oxfordshire [41], just over the Wiltshire border south of Hungerford [36] and east of Swindon [27], but its Wiltshire headquarters are some distance away, to the north-west of Salisbury. Recent molecular studies indicate that it may be more appropriately treated in the genus *Neotinea* (Bateman *et al.*, 1997).

NVC: CG 2

East Berks: no records

West Berks: rare on the chalk, but extinct on limestone in the Northern Loop. Last seen at Aston Upthorpe Down [544843] in 1988 and 1992, and before that at Kingstone Down above Ashdown House [2882] and at Blewburton Camp [5486] in 1964. There were several sightings in the 1950s at Gore Hill to the south of Chilton [4883], but the site was ploughed up, East Hendred downs [4685] and Streatley [5881], but most of the records were pre-1900: Whitehorse Hill [28], Lambourn Downs and Wantage [38], Cherbury Camp [39], Chilswell Hills [40], Ilsley Downs, Churn, Unhill and Moulsoford Downs [58]. Extremely sporadic in its flowering and hence always worth looking for at its former sites. Atlas 2000: [28], [38], [48], [58]

[Orchis purpurea Huds. *Lady Orchid*]

Open beech woodland, disappearing if the wood becomes too dense or dark. Never recorded from Berkshire, but a candidate for introduction in Bisham Woods. There are recent records from [67] but these are from the Oxfordshire side of the Thames near Goring (one in, and the other close to, the Hartslock reserve; see *O. simia*, below). The top of each flower is dark purple, the bottom lighter (in *O. militaris*, the top is light and the bottom darker).

Orchis militaris L. *Military Orchid*

grt 5 †

Woods and borders of woods on the chalk; formerly local and rare, now extinct. Survives close by on the Buckinghamshire side of the Thames at Marlow [88], in a grassy roadside bank on the forest edge.

East Berks: extinct. "About Henley, on the precipitous bank of Bisham Wood, near the Quarry, both below and above the path, but sparingly" (1843). In his Flora of Buckinghamshire, Druce writes "It is not easy to account for its disappearance. Willful depredations have been made by some botanists, not only by botanical students who should know better, but by Boswell Syme, the eminent author of *English Botany*, who collected rapaciously. Rabbits, I think, must have been an active agent". In the Flora of Berkshire he writes "The reckless manner in which Dr. Boswell Syme collected the rare Thames orchids was exceedingly reprehensible". Extinct in Berkshire according to Bowen. There is a 1987 record from Quarry Wood [858854], but Bowen did not find it in 1988, and I have not seen it subsequently. A candidate for reintroduction at Bisham Woods.

West Berks: extinct. Hinksey in 1699. There are nineteenth century records from Pangbourne [67], between Pangbourne and Streatley [57] in 1809 and 1886 and Moulsoford Downs [58], but no twentieth century records.

Orchis simia Lam. *Monkey Orchid*

grt 5 †

Woods on the chalk downs. Recorded from Caversham Hill north of the R. Thames in Oxfordshire v.c.23 by Sir Joseph Banks in 1778. "Among bushes on the rising ground to the west of the great chalk pit near Caversham, facing the Thames" (Bicheno, 1818). "At Whitchurch in 1839 when going over the ground late in summer, I was grieved and horrified to see the steep slopes pared and burnt in order to enrich the land with the ashes, and so I actually witnessed the roasting alive of both Soldier and Monkey Orchis" (Whitchurch 1881 in Druce's *Flora of Oxfordshire*).

East Berks: no records from the eastern chalk.

West Berks: recorded by Mr Brown (*Merrett's Pinax*) between Wallingford and Reading on the Berkshire side of the river in 1666. Streatley [5580] in 1879 (OXF). There are field records from Pangbourne [67] in 1860 and Streatley [58] before 1913, but no sightings since then. It is possible that some of the early sightings were errors for the famous Monkey Orchid site just over the river at Hartslock in Oxfordshire where Lady Orchid also grows (you can visit the orchid's web site at <http://hartslock.org.uk/>).

[Aceras anthroporum (L.) W.T. Aiton *Man Orchid*]

There are no confirmed records of Man Orchid for Berkshire, but several errors found their way into circulation, including mis-identifications of Frog Orchid and Twayblade. There is a 1666 record in Merrett's *Pinax* from between Wallingford and Reading, repeated in the Botanist's Guide of 1805, and the 1854 list of Streatley plants by Pamplin. Morphological and molecular (Bateman *et al.*, 1997) evidence suggests that *Aceras* belongs in the genus *Orchis*.

Himantoglossum hircinum (L.) Spreng. *Lizard Orchid*

g 6 †

Satyrium hircinum L.

Orchis hircina (L.) Crantz

A *Red Data Book* species which *increased* its distribution markedly between 1900 and 1930. It was formerly restricted to Kent, but spread as far as Yorkshire in the north, and Devon in the west. It looks as if this increase was transient, and the distribution has since contracted markedly to just 2 large populations at Sandwich Bay in Kent and Devil's Dyke in Cambridgeshire. Since 1987, however, at least 7 new populations have appeared, so it is well worth searching for re-established populations in the Berkshire downs.

East Berks: no records from the eastern chalk.

West Berks: not in Druce. Tall, open chalk grassland; very rare, sporadic or extinct. Pitchpole Wood at Letcombe Bassett [3784] in 1936 (**OXF**), and Lollingdon Hill above Cholsey [5785] in 1921 (**OXF**) and 1979. There is a field record from Kingston Lisle [3287] in 1970. It is not known how these populations became established nor how long they lasted, but they may have been single, essentially casual establishments.

Ophrys insectifera L. *Fly Orchid*

grt 5 ↓

Ophrys muscifera Hudson

Woods and thickets on the chalk. Unaccountably rare in even our best chalk woodlands. Pollinated by wasps like *Argogorytes mystaceus* and *A. fargei*.

NVC: M 13

East Berks: Hurley (1818), Cookham (1805), Bisham Wood (1897), Park Place, "in almost all the woods near Marlow" (Druce), Quarry Wood. Rare and decreasing. Remenham (1962). A candidate for reintroduction at Bisham. Still found just over the R. Thames in Oxfordshire to the west [77] and [78]. Atlas 2000: no records, apparently extinct

West Berks: much reduced, and now on the verge of extinction. Last seen in the summit beech wood on Kingstone Warren [3286] in 1961, the scarp ash wood at Uffington Wood [3087] in 1961 and 1981, and in Beech Wood at Hampstead Norreys [5376] in 1965. There are nineteenth century records from Ilsley [48], Ginge Brook [49], Streatley [58], Sulham and Basildon [67]. Still found just over the R. Thames in Oxfordshire to the north [67]. Three plants were found by Bill Helyer in May 2002 on the western side of the railway north-west of Pangbourne [623773]. Atlas 2000: no records, but subsequently rediscovered in [67].

Ophrys apifera Huds. *Bee Orchid*

grt 6

Ophrys trollii Hegetschw.

Ophrys apifera Hudson var. *trollii* (Hegetschw.) Reichb.f.

Ophrys apifera Hudson subsp. *trollii* (Hegetschw.) K. Richter

Ophrys apifera Hudson subsp. *jurana* Ruppert

Ophrys holoserica (Burman f.) Greuter

Chalk grassland, quarries, brick-pits, chalk downs, railway embankments, disturbed chalky ground: local, but springing up in odd places. Self pollinating despite the elaborate, insect-like labellum.

NVC: CG 2,3,5

Ascot: a small population (2 or 3 spikes in most years) in the grassy triangle at the northern end of the racecourse [923699] since 1991. Not in Silwood Park.

East Berks: "In a plantation on the right-hand side of the road going from Hurley Bottom to Henley, and in a wood near the Druid's Temple in Park Place" (Druce). Quarry Wood. Rare and sporadic. Remenham (1955), Hurley chalk pit (3 plants in 1988 and 4 in 2004). In steep chalk grassland above Cock Marsh [887866]. It can appear almost anywhere, as in new roadworks leading down to the ferry over the Thames at Pennyroyal Field at Bray (May 1998). Chalk grasslands in the western Thames valley from Remenham to Cock Marsh; absent from the interior, and from the south and east. Recently at Crazies Hill, Ambarrow Court [825627], Hurley chalk pit, Winter Hill, in the steep chalk grasslands above Cock Marsh, Dinton Pastures, Bray. There were 12 spikes by the ride at Hut Hill [852654] on 10 June 2004. 1% (1km²). Atlas 2000: all except [76], [87]

West Berks: on the chalk, but uncommon in the centre of the district (e.g. rare in [48]), and on the oolitic limestone. Always very rare in the Kennet valley. Ashdown Park [2881], Buscot Park [2496], Compton Beauchamp [2887], Inkpen Downs [3562], in the grassland above the chalk pit at West Woodhay Down [388618] on 12 June 2004, Whitehorse Hill [3080], Seven Barrows [3282], above Letcombe Bassett [3785], at both ends of the former runway of Greenham Common airbase [46] and [56], with about 100 plants at the western end in June 2001, including 5 spikes of var. *flavescens* in June 2002, AERE Harwell [4887], Chilton [4886], Cothill quarry [4699], Cumnor Hill [4704], Wytham hill top [4608], Brimpton gravel pits [5764], AWRE Aldermaston near Building C8 [5863], Aston Upthorpe Downs [5483], Aston Tirrold [5586], Lollingdon Hill [5785], Streatley Hills House [5979], Burnt Hill [5674], Didcot Power Station [513916], Radley gravel pits [5297], Sutton Courtenay [508941], Barrow Hills [5198], Chilswell valley [5003], Decoy Heath [613635] 30 plants in June 2003, Burghfield gravel pits [66], 35 plants in June 2001. Atlas 2000: all except [47], [68], [69]