

# Fulham Palace grounds and All Saints, Fulham churchyard

## Botany Survey and Preliminary Ecological Guidance



Germander speedwell (*Veronica chamaedrys*) and sweet vernal-grass (*Anthoxanthum odoratum*) are locally abundant in remnant old grassland in Fulham Palace and All Saints churchyard. Both species are important for a wide range of invertebrates. All photographs are the copyright of the author

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## 1 Introduction

1.1 This survey was conducted during multiple visits during 2020 and 2021. The primary aim was to provide Fulham Palace and All Saint Church with baseline data that could be used to inform the management of both sites and to help ensure that their objectives were complementary and supported wider objectives relating to sustainability, environmental change, biodiversity, and community support & engagement. This report (and the associated reports compiled by Joe Beale) is not a management plan but a stepping-stone towards that objective. However, the report does discuss some options for management and make suggestions that will enhance the biodiversity of both sites. It also the aim of this report to enable community engagement and increase knowledge about the biodiversity value of these sites.

## 2 Flora of Fulham and Greater London

2.1 The wild plants of Greater London are some of the most thoroughly documented in the world. People have been observing and recording London's plant life since at least the 16<sup>th</sup> century and there is a large quantity of literature documenting this history and the changes that have occurred within that time. Notable sources of information used in undertaking this report are:

Trimen, H. & Dyer, W.T.T. (1869) *The Flora of Middlesex*

Kent, D.H. (1975) *The Historical Flora of Middlesex* & (2000) *The Flora of Middlesex A Supplement to the Historical Flora of Middlesex*

Burton, R. (1983) *Flora of the London Area*

2.2 The London Natural History Society (LNHS) is currently undertaking a long-term project to update this knowledge and ensure that the important information contained within these works is transferred into data that will be submitted to London's regional biological records centre, Greenspace Information for Greater London (GIGL) and into the national resource, the Botanical Society of Britain and Ireland (BSBI). With the permission of Fulham Palace and All Saints Church, the data from this survey will be submitted to these important repositories. The names used in this work (largely) follow: Stace, C. (2019) *New Flora of the British Isles*.

2.3 There are no detailed published accounts, past or present, of the wild plants of Fulham. Therefore, in addition to the survey work undertaken, I have conducted desk searches of online resources (principally the BSBI databases) and reviewed data supplied by Fulham Palace with the aim of establishing which species of wild plant have been recorded in and around (within 100m) of the two sites since 2000. These data have been compiled alongside the current survey data to establish if there have been any significant changes in the wild plants of Fulham Palace and All Saints churchyard in the last 30 years. I have also looked further back in time to develop an understanding of long-term changes in the flora and also to inform what species could be re-established to enhance biodiversity (see section 5.3).

2.4 Many wild native and archaeophyte (ancient introductions such as poppy) plants are experiencing long-term declines in their abundance throughout England. Over the last 200 years, in many parts of what is now Greater London, losses have been severe and many species are now locally or regionally extinct. I have not undertaken a thorough review of extinction in the Fulham area but I have conducted a brief survey of key species that no longer grow in, or around Fulham Palace and All Saints churchyard. These records have been retrieved from Trimen & Dyer's *Flora of Middlesex* (1869).

2.6 Notable losses have been plants associated with the Thames or the long-drained moat. The loss of the moat in particular has had a negative impact upon plant diversity. Long gone are white (*Nymphaea alba*) and yellow waterlilies (*Nuphar lutea*), both were recorded as growing in the moat in the 17<sup>th</sup> and 18<sup>th</sup> centuries, as was sweet-flag (*Acorus calamus*). Other losses include large bitter-cress (*Cardamine amara*), a now rare plant in London, that was seen by the eminent botanist William Sherard in 'osier-holts by the Thames-side, over against my Lord Bishop of London's garden at Fulham' (in John Ray's *Synopsis*, 1690) and tubular water-dropwort (*Oenanthe fistulosa*) that Gerard observed in his much lauded *Herball* (1633) grew 'neare the river about the Bishop of London's house at Fulham'. Other plants of wet and watery habitats that are now long gone include meadow-rue (*Thalictrum flavum*) and valerian (*Valeriana officinalis*), these two species are now greatly diminished in numbers and face a perilous future in London. Other species, such as creeping yellow-cress (*Rorippa sylvestris*), purple loosestrife (*Lythrum salicaria*) and blue water-speedwell (*Veronica anagallis-aquatica*), have fared better and remain locally frequent in some parts of London, despite their loss in Fulham.

2.7 Known losses to Fulham's plant life in other habitats have been fewer although many are now uncommon. Of the plants associated with woodland and hedgerows, privet (*Ligustrum vulgare*) has not been recorded in recent years. Sadly, the only wild Fulham plant represented in the historic botany collections at the University of Oxford, giant fescue (*Schedonorus giganteus*), a common native woodland grass, also appears to be locally extinct. It is highly likely that many other species, such as greater stitchwort (*Stellaria holostea*), a widespread plant of lowland woods, vanished without record. Plants of dry and open habitats appear to have fared reasonably well, although there have been a few losses such as wall whitlow-grass (*Draba muralis*) and white stonecrop (*Sedum album*).

2.8 It is well known that Bishop Compton (Bishop of London 1675-13) was an avid collector of plants. Alongside species that he clearly intended to grow, other plants from distant parts crept in. Two that are recorded in Trimen & Dyer, cockspur (*Echinochloa crus-galli*) and bristly foxtail (*Setaria verticillata*) are among the earliest records on these 'weedy' non-native species in this country. Neither persist at Fulham Palace despite being locally frequent elsewhere in southern England. While there have been losses of native and archaeophyte plants, Fulham Palace and All Saints churchyard have accrued a diverse assemblage of recent colonists (known as neophytes). Some of these, such as a white comfrey (*Symphytum orientale*) and cherry-plum (*Prunus cerasifera*) appear to offer both ecological and aesthetic value to the environment. Others are invasive and present significant management challenges (see section 6).

### 3 Survey Results

3.1 During the survey period, I made 463 records across both sites, of these 121 were made within All Saints churchyard, the remainder in the grounds of Fulham Palace. Each record is localised to at least the nearest Ordnance Survey 1 km square and for rare, more important species, higher resolution grid references were taken. All data is present in a spreadsheet supporting this report (MAS-Fulham-AllSaints-survey-2021). For the purposes of GDPR, I have removed personal information from data I have retrieved from other sources for comparison with my own survey.

3.2 A number of plants that had been previously recorded as growing at Fulham Palace were excluded from the current survey. These records are marked 'cultivated' in the spreadsheet. The primary reason for excluding these were that they were cultivated plants and were not seen to be regenerating naturally. Unfortunately, in some cases, botanists do not record whether the plant is wild or cultivated.

3.3 I have made a number of records for species that appear to be new to either or both sites. These records are marked 'new record' in the spreadsheet. In most cases, these are probably widespread and common species, such as creeping bent (*Agrostis stolonifera*), that have been overlooked. Others, such as greater burdock (*Arctium lappa*) are species that are now uncommon in parts of Greater London and may have been assumed to no longer occur in Fulham. Some species, such as common century (*Centaureum erythraea*) and musk mallow (*Malva moschata*) may be recent colonists that have established following recent shifts in landscape management practices at both Fulham Palace and All Saints. Others, such as grape hyacinth (*Muscari armenaicum*) are relatively escapes from horticulture.

3.4 Concerningly, quite a large number of species that were recorded between 2000 and 2018 were not observed within the current survey period. These records are marked 'not recorded in current survey' in the spreadsheet. Some of the absences may be due to data error or misidentifications (such as the very rare native alpine, *Myosotis alpestris*, which is certainly an error). Some of the records that have been attributed to Fulham Palace may have been made in the adjoining Bishop's Park, particularly those require damper soil conditions (there is a large lake in Bishop's Park). It is also probable that some species have been overlooked during the current survey period.

3.5 Overall, the species present within both sites are typical of many inner London greenspaces that have a long history and are in some respects, remnants of the Middlesex landscape as it was before urbanisation. Species such as *Poa humilis* (spreading meadow-grass), *Veronica chamaedrys* (germander speedwell) and *Luzula campestris* (field wood-rush) are poor dispersers that are rarely found in recently created landscape, their presence often indicates long-term survival, often under challenging conditions. Others, such as *Convallaria majalis* (lily-of-the-valley), despite being native elsewhere in England, are long-term escapees from cultivation in much of Greater London.

## 4 Species of Conservation Concern or at Risk of Extinction

4.1 None of the species recorded during the current survey are considered to be at risk of extinction in GB (see: <https://hub.jncc.gov.uk/assets/cc1e96f8-b105-4dd0-bd87-4a4f60449907>) or England (see: [https://bsbi.org/wp-content/uploads/dlm\\_uploads/England\\_Red\\_List\\_1.pdf](https://bsbi.org/wp-content/uploads/dlm_uploads/England_Red_List_1.pdf)).

4.2 Currently, there is no equivalent and accurate published information for Greater London. Of the species recorded during the current survey, the following are uncommon or rare in Inner London and in the L.B. Hammersmith & Fulham: *Agrimonia eupatoria* (common agrimony), *Ajuga reptans* (bugle), *Allium ursinum* (ramsons or wild garlic), *Arctium lappa* (greater burdock), *Barbarea vulgaris* (winter-cress), *Centaureum erythraea* (common centaury), *Chaerophyllum temulum* (rough chervil), *Clinopodium ascendens* (common calamint), *Convallaria majalis* (lily-of-the-valley), *Deschampsia cespitosa* subsp. *cespitosa* (tufted hair-grass), *Filipendula ulmaria* (meadowsweet), *Fragaria vesca* (wild strawberry), *Geranium pratense* (meadow crane's-bill), *Lepidium latifolium* (dittander), *Malva moschata* (musk mallow), *Poa humilis* (spreading meadow-grass), *Rhinanthus minor* (yellow-rattle), *Tanacetum vulgare* (tansy), *Urtica dioica* subsp. *galeopsifolia* (fen nettle), *Verbascum nigrum* (dark mullein) and *Vicia sepium* (bush vetch).



Dittander (*Lepidium latifolium*) and dark mullein (*Verbascum nigrum*) on the restored section of the moat at Fulham Palace. Both species are scarce in Greater London and of ecological and conservation value. Dittander may be an ancient introduction (It was once grown as flavouring) and is largely restricted to the tidal Thames in East London. Dark Mullein is rare in north of the Thames although it is locally frequent in the south-western parts of the city.

## 5 Habitat Management Recommendations

5.1 As noted previously, the recommendations below are not a management plan. They should be viewed as options that could inform any future plans. Alongside my own comments, I have also endeavoured to reflect the comments made by Joe Beale in his three reports on birds, butterflies, and moths.

5.2 For both sites, I would recommend the introduction of standing water. I recognise the challenges this presents from a Health and Safety and maintenance perspective, as well as the need to ensure the protection of the important archaeology of the area. However, the availability of water is widely accepted as been of considerable value to a wide range of organism groups and its presence would be beneficial. Historically, the moat was an important area of standing water; there may be options for including the currently dry moat into future plans for sustainable urban drainage systems (SUDS). Across both sites, the moat stands out as being of particular importance for plants and invertebrates. It contains several of the rarer plant species, such as bush vetch, dittander, common calamint and dark mullein. It is important that the open, sunny aspect of this area is retained.

5.3 There are several large areas of grassland in both Fulham Palace and All Saints. In several cases these are already seasonally mown and could be enhanced by the introduction of suitable grassland plants, as well as spring and autumn bulbs for additional aesthetic appeal (spring bulbs such as crocuses and daffodils are also valuable as foraging opportunities for insects such as bumble bees). In areas where there is a need to maintain tidy path margins more regular mowing is appropriate and provides niche habitats for smaller species such as *Bellis perennis* (daisy). Below is a list of native grassland and woodland margin plants that I recommend for both sites:

Yarrow	<i>Achillea millefolium</i>	Field Wood-rush	<i>Luzula campestris</i>
Agrimony	<i>Agrimonia eupatoria</i>	Musk Mallow	<i>Malva moschata</i>
Garlic Mustard	<i>Alliaria petiolata</i>	Spiny Restharrow	<i>Ononis spinosa</i>
Meadow Foxtail	<i>Alopecurus pratensis</i>	Wild Marjoram	<i>Origanum vulgare</i>
Sweet Vernal-grass	<i>Anthoxanthum odoratum</i>	Wild Parsnip	<i>Pastinaca sativa</i>
Betony	<i>Stachys officinalis</i>	Smaller Cat's-tail	<i>Phleum bertolonii</i>
Quaking Grass	<i>Briza media</i>	Burnet-saxifrage	<i>Pimpinella saxifraga</i>
Soft Brome	<i>Bromus hordeaceus</i>	Cowslip	<i>Primula veris</i>
Common Knapweed	<i>Centaurea nigra</i>	Selfheal	<i>Prunella vulgaris</i>
Rough Chervil	<i>Chaerophyllum temulum</i>	Common Fleabane	<i>Pulicaria dysenterica</i>
Crested Dogstail	<i>Cynosurus cristatus</i>	Meadow Buttercup	<i>Ranunculus acris</i>
Wild Carrot	<i>Daucus carota</i>	Bulbous Buttercup	<i>Ranunculus bulbosus</i>
Foxglove	<i>Digitalis purpurea</i>	Yellow Rattle	<i>Rhinanthus minor</i>
Viper's Bugloss	<i>Echium vulgare</i>	Common Sorrel	<i>Rumex acetosa</i>
Hemp agrimony	<i>Eupatorium cannabinum</i>	Wild Clary	<i>Salvia verbenaca</i>
Meadowsweet	<i>Filipendula ulmaria</i>	Great Burnet	<i>Sanguisorba officinalis</i>
Hedge Bedstraw	<i>Galium album</i>	Meadow Saxifrage	<i>Saxifraga granulata</i>
Lady's Bedstraw	<i>Galium verum</i>	Meadow Fescue	<i>Schedonorus pratensis</i>

Dyer's Greenweed	<i>Genista tinctoria</i>	Pepper Saxifrage	<i>Silaum silaus</i>
Meadow Crane's-bill	<i>Geranium pratense</i>	Red Campion	<i>Silene dioica</i>
Meadow Barley	<i>Hordeum secalinum</i>	Greater Stitchwort	<i>Stellaria holostea</i>
Perforate St John's Wort	<i>Hypericum perforatum</i>	Devil's-bit Scabious	<i>Succisa pratensis</i>
Ploughman's-spikenard	<i>Inula conyzae</i>	Tansy	<i>Tanacetum vulgare</i>
Field Scabious	<i>Knautia arvensis</i>	Wood Sage	<i>Teucrium scorodonia</i>
Crested Hair-grass	<i>Koeleria macrantha</i>	Upright Hedge-parsley	<i>Torilis japonica</i>
Grass Vetchling	<i>Lathyrus nissolia</i>	Wild Red Clover	<i>Trifolium pratense</i>
Meadow Vetchling	<i>Lathyrus pratensis</i>	Yellow Oat-grass	<i>Trisetum flavescens</i>
Oxeye Daisy	<i>Leucanthemum vulgare</i>	Vervain	<i>Verbena officinalis</i>
Common Toadflax	<i>Linaria vulgaris</i>	Common Vetch	<i>Vicia sativa</i>
Birdsfoot Trefoil	<i>Lotus corniculatus</i>		

5.4 The importance of black horehound (*Ballota nigra*), a frequent plant in inner London, was mentioned in Joe Beale's reports. He especially commented upon the need to ensure that the area to the east of the walled garden and adjoining the churchyard was suitably maintained to protect the populations of various invertebrates, particularly for the scarce Horehound Long-horn (*Nemophora fasciella*) moth that feed on this plant. Reflecting this and other similar comments within his reports, I recommend that some areas of grassland are left uncut to allow invertebrates overwinter (on a 2-3 year's rotational basis).

5.5 There are several areas of grassland within the survey area that contain higher levels of plant species diversity, if possible it should be these areas that efforts be focussed upon when considering habitat improvement. The areas are:

- a. The moat, this area is already of high biodiversity value for the site. It is potentially a donor site (green hay and/or propagated material) for other areas.
- b. A small heavily mown area immediately to the north and adjacent to the main palace building. This too contains some of the scarcer species such as common centaury, wild marjoram, and musk mallow.
- c. The strip of grassland immediately to the northwest of the outer wall of the walled garden. This area has some (probably) remnant native bluebell, field wood-rush and germander speedwell.
- d. The three large, non-cultivated areas of grassland within the walled garden. These areas contact some relict & regenerating plant populations. Their extent and open, sunny aspect make them valuable and important areas of opportunity for ecological enhancement.
- e. The strip of grassland immediately to the east of the walled garden and adjoining the scrub/shrub area bordering All Saints. This area has already seen enhancements undertaken and plants such as meadow crane's-bill have been introduced.
- f. Within the grounds of All Saints, there is an area of closely mown grassland to the south and east of the church that contains relict plants of old grassland, such as field wood-rush and germander speedwell.

5.6 While both Fulham Palace and All Saints are ecologically connected, the landscape uses of the sites and the needs and expectations of their users differ. All Saints is a smaller space and there is a need to address the desire to be able to see memorials and maintain access. Reductions in mowing (& the subsequent benefits for biodiversity) can be achieved but there will need to be



careful consideration of specific options. Currently, the recent reduction in mowing appears to have resulted in a significant increase in the abundance of cow parsley (*Anthriscus sylvestris*); this is an important plant ecologically but it can become overly dominant. I recommend that in some areas where stands of this plant are particularly dense that the area is cut after flowering and the cuttings removed. This will help reduce that abundance of this species and enable other plants to establish.

5.7 The grounds of All Saints are in some places negatively impacted by the dense tree canopy, particularly yew (*Taxus baccata*). I recommend that options be explored to reduce their canopy (yew is very amenable to suitably undertaken crown reduction) to allow greater light penetration. The north-east corner of All Saints churchyard is being invaded by tree-of-heaven (*Ailanthus altissima*), a highly invasive species that negatively impacts biodiversity and is a threat to the site's landscape and architectural heritage. This is a problem that is only going to get worse and will spread. Unfortunately, resolving this problem is likely to be expensive and require the cooperation of all of the landowners and managers within the vicinity.

5.8 There are extensive areas of semi-natural woodland within the grounds of Fulham Palace. Current management has focussed on managing the abundance of certain tree species such as sycamore. There are significant opportunities to improve these areas by managing the abundance of some species such as ivy, holly, holm oak and cherry-laurel. However, it is important that areas of dense shrub be maintained and that at least some log piles are inaccessible to humans (repeated disturbance inhibits the development of diverse communities of decomposition organisms and associated species).



Cow parsley (*Anthriscus sylvestris*) and white dead-nettle (*Lamium album*) are both frequent across Greater London. Their aesthetic and ecological value is often overlooked. Cow parsley supports a wide range of pollen and nectar feeding invertebrates and white dead nettle is valuable for early season bumble bees.

## 6 Invasive Non-native Species.

6.1 Several invasive species were recorded during the survey. It is important to note that the majority of non-native species are non-invasive. For clarity, I will define these terms as used within this report. A 'non-native' species is an organism that has arrived in a new geographical region through the activities of humanity. As such archaeophytes (ancient introductions pre-dating 1500) and neophytes (recent introductions arriving after 1500) are non-native. It is also important to note that 'non-native' does not indicate that the organism is considered to be negatively impactful (i.e., 'invasive'). Scientists aim to define 'invasiveness' in quite a specific manner; for an organism to be considered invasive there is a need to demonstrate that the organism causes significant harm or destruction to habitats and/or cause the extinct of individual species. Importantly, plants that are sometimes described as 'invasive' in horticulture are not necessarily invasive in the wider landscape. As a consequence, many non-natives, such as white comfrey (*Symphytum orientale*) and cherry-plum (*Prunus cerasifera*) are not considered to be invasive (based upon current evidence), and conversely native species, such as *Arrhenatherum elatius* (false oat-grass) can be invasive in some circumstances. Below is a summary of species present in the grounds of Fulham Palace and All Saints churchyard that have elsewhere been described as invasive and my opinion relating to that description:

*Acer pseudoplatatanus* (sycamore): nationally, this 'near-native' (a species native to mainland Europe but not to Great Britain) is sometimes considered problematic in important habitats such as ancient woodlands. However, it is also an ecologically valuable tree that may provide niche habitats for some species affected by the loss of ash trees due to ash die-back. It is also an important nectar/pollen source for some insects and foraging habitat for birds. However, it can be a highly competitive species and its abundance should be carefully regulated in wooded areas. **NON-INVASIVE**

*Aegopodium podagraria* (ground elder): often described as 'invasive' in horticulture, this archaeophyte near-native is naturally locally dominant. Despite its reputation, it is of significant ecological value, particularly when left to flower. **NON-INVASIVE**

*Aesculus hippocastanum* (horse-chestnut): see comments under *Acer pseudoplatatanus* as they largely apply. **NON-INVASIVE** [However, its close relative Indian horse-chestnut (*Aesculus indica*) may become invasive.]

*Ailanthus altissima* (tree-of-heaven): this is recognised to be an invasive species of global significance. It is already well-established in All Saints churchyard and is likely to present significant challenges to both sites in the future. **HIGHLY-INVASIVE**

*Allium paradoxum* (few-flowered garlic): this species and the more widespread three-cornered leek (*Allium triquetrum*) are negatively impactful on woodland and hedgerow habitats. Fortunately, three-cornered leek is not present at either site and efforts should be made to ensure the species does not establish (horticultural hygiene and screening of compost are highly important). Efforts should be made to control few-flowered leek and prevent it spreading further. **INVASIVE** [the native and naturally locally dominant ramsons (*Allium ursinum*) is uncommon on site and should be encouraged to spread].

*Buddleja davidii* (buddleia): this plant, despite its reputation as the 'butterfly bush', is one of the most serious invasives of terrestrial habitats in the UK. The abundance of this plant should be carefully monitored and control taken to prevent it outcompeting other species. **HIGHLY-INVASIVE**

*Calystegia silvatica* (large bindweed): often described as 'invasive' in horticulture, this neophyte 'near-native' is naturally locally dominant. Despite its reputation, it is of ecological

value, particularly when in flower. The abundance of this plant needs careful management on the moat, where it's spread would be negatively impactful. **NON-INVASIVE**

*Fallopia japonica* (Japanese knotweed): a well known invasive that is already been controlled in the grounds of Fulham Palace. **HIGHLY-INVASIVE**

*Galega officinalis* (goat's-rue): this archaeophyte 'near-native' can become dominant and negatively impact grassland habitats; it's abundance on the moat should be carefully monitored and controlled. However, it is of significant ecological value when in flower. **POTENTIALLY-INVASIVE**

*Hedera helix* & *Hedera colchica* (common ivy and Persian ivy): common ivy is a native species; it is an important part of our ecosystems and is particularly valuable when flowering and fruiting. However, it and the non-native Persian ivy can be dominant on woodland floors and their abundance should be monitored. Common ivy **NON-INVASIVE** & Persian ivy **POTENTIALLY-INVASIVE**

*Hyacinthoides x massartiana* (hybrid 'Spanish' bluebell): recent studies have shown that this plant is unlikely to be a threat to our native plant (*H. non-scripta*). However, it's abundance should be monitored. **NON-INVASIVE**

*Ilex aquifolium* & *Ilex x altaclarensis* (holly and Highclere holly): holly is a native species; it is an important part of our ecosystems and is particularly valuable when flowering and fruiting. However, it and the non-native Highclere holly can become dominant and their abundance should be monitored. Holly **NON-INVASIVE** & Highclere holly **POTENTIALLY-INVASIVE**

*Parthenocissus* sp. (Virginia-creeper): this vine relative may become dominant in some habitats and have negative impacts. **INVASIVE**

*Pentaglottis sempervirens* (green alkanet): this near-native has a mixed reputation, it can be dominant in some habitats, conversely, it is highly valued as a nectar source for early season invertebrates, particularly bees. **POTENTIALLY-INVASIVE**

*Prunus laurocerasus* (cherry-laurel): this evergreen shrub may become dominant in woodland habitats and have negative impacts. **INVASIVE**

*Quercus cerris* (Turkish oak): this deciduous near-native species is considered by some ecologists to be potentially invasive. However, the impacts in this country are as yet unquantified. **NON-INVASIVE**

*Quercus ilex* (Holm oak): probably because of climate change, this near-native species is rapidly increasing in abundance in parts of southern England. Due to its evergreen habit, this species (like laurustinus, hollies, and cherry-laurel) has the potential to significantly alter woodland ecology and cause a decline in woodland plants such as primroses and bluebells. **POTENTIALLY-INVASIVE**

*Robinia pseudoacacia* (false acacia): this is a known severe invasive in parts of mainland Europe and is rapidly increasing in parts of southern England and the Greater London area. It is also culturally linked to Fulham Palace (it was a horticultural introduction by Bishop Compton). The abundance of this plant needs careful monitoring and its spread controlled. **HIGHLY-INVASIVE**

*Smyrnum olusatrum* (Alexanders); this Roman introduction of Mediterranean origin has rapidly increased in abundance recently. Due to its early flowering, it is of considerable value to pollinating insects. Its abundance should be carefully monitored. **NON/POTENTIALLY-INVASIVE**

*Solidago canadensis* (Canadian golden-rod): non-natives species of Solidago (there is one native species that is now very scarce in the London area) may become invasive in grassland

habitats. The species is uncommon in Fulham Palace & not recorded at the churchyard. Its abundance should be carefully monitored. **POTENTIALLY-INVASIVE**

*Symphyotrichum x salignum* (common Michaelmas-daisy): Michaelmas-daisies may become invasive in grassland habitats. This plant is occasional in Fulham Palace and not recorded at the churchyard. Members of this genus are also widely used as a nectar source by invertebrates in late summer and autumn. Its abundance should be carefully monitored.

**POTENTIALLY-INVASIVE**

*Symphoricarpos albus* (snowberry): this low growing shrub may become locally dominant in woodlands. **POTENTIALLY-INVASIVE**

*Viburnum tinus* (laurustinus): see comments under *Quercus ilex*. **POTENTIALLY-INVASIVE**



Green alkanet (*Pentaglottis sempervirens*) and greater celandine (*Chelidonium majus*) are both quite common in many urban habitats. These two near-natives have been established in the London area for many centuries. Both species may cause mild skin irritation, the bristly hairs of green alkanet become very unpleasant to handle after and the bright yellow sap of has been used in folk medicine.

## 7 Summary

7.1 The species data and ecological information presented within this report and the reports of Joe Beale are a basis upon which Fulham Palace and All Saints Church, Fulham now have the opportunity to start communicating the biodiversity value of these sites and to explore the development of resilient land management strategies for the future. It is recognised that both organisations have, over the last decade, significantly enhanced the biodiversity value of these sites by altering their management practices. Within this report, I have focused quite heavily on invasive non-native species, this is because it is internationally recognised that invasive species, alongside habitat fragmentation and climate change pose severe threats to biodiversity. London's rich and complex history of plant introductions has left a legacy that needs understanding and managing appropriately.

7.2 It is hugely important that as we move into an era of greater climate uncertainty that all future management practices are developed with the necessity to manage site carbon budgets effectively. Of key importance is the need to increase the ecological resilience of the landscape that the grounds of the palace and the church occupy. Undertaking this will be challenging and it is important to recognise the existing carbon sequestration capacity of the sites and the potential to improve that capacity. Currently, there is a widespread belief that tree planting is the best option in this regard – this is not always the case, grasslands (especially those maintained to enhance biodiversity) are an important part of the solution and the existing grasslands at Fulham offer great potential for increasing their carbon sequestration capacity by altering mowing regimes. There are many other options and solutions that may become apparent as this process develops.



Common cat's-ear (*Hypochaeris radicata*) and bush vetch (*Vicia sepium*). The former thrives in hot sunny locations and is highly drought resistant while the latter prefers the light shade of a hedge or woodland margin.