Waxcap surveys
of Churchyards and Cemeteries
in Leicestershire

Butter waxcaps

Sue Timms, November 2023

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1. Background and summary

I began this survey in October 2023 to assemble data that could be used to inform revision of the current (2011) Local Wildlife Site (LWS) criteria for grassland fungi in Leicestershire and Rutland. I targeted churchyard and cemetery sites in the north and west parts of Leicestershire, because these had not been surveyed previously, were readily accessible, and many appeared to have the right kind of habitat for waxcaps. (See unpublished draft report: *Waxcap fungi as indicators of conservation value grasslands in VC55).*

The quality and quantity of the waxcap assemblages in many of the cemeteries and some of the churchyards was excellent, and unexpected. Autumn 2023 may have been a good season for waxcaps, with a mild, damp autumn following a dry and warm late summer. It seemed sensible to take advantage of this, so I continued my surveys through November, visiting 19 cemeteries and 37 church or chapel yards between 10th October 2023 and 22nd November 2023. A map showing locations and waxcap value of the survey sites is in section 2.

Waxcaps make good grassland quality indicators because they are often brightly coloured and are relatively easy to find in cropped or mown turf – unlike other indicators such as the darker/neutral coloured Pinkgills (*Entoloma*) or Earth-tongues (Geoglossaceae), or the many other 'LBMs' (Little Brown Mushrooms) found in similar grassland habitats.

One aim of my LWS report was to devise a system that a competent naturalist could use in the field or from examination of specimens without having a high level of expertise, and without use of a microscope. Identifying some waxcaps is challenging, but several are easy to identify in the field, and several others are identifiable with care from specimens. Some are impossible without microscopy. I found 13 waxcap species that I felt confident or reasonably confident about identifying. Some notes on identification resources are in section 6, and in section 3 I have listed the species I found, with notes on identification and whether I found them easy, fairly easy or tricky species to identify.

The results of the surveys confirmed the widespread and generally accepted idea that high numbers of waxcaps indicate species-rich grasslands of conservation value. 18 sites with 5 or more waxcaps species were found, and all these sites had moderately species-rich grassland, several meeting current Local Wildlife Site criteria for acid or mesotrophic grassland. A list of the top sites is appended, with some brief site descriptions and habitat notes, and full survey data is on the attached spreadsheet.

Some brief notes on habitat and management are in section 7 and 8. The ideal grassland habitat for waxcaps in churchyards and cemeteries in the survey area is regularly mown grassland, with a long history of continuous lawn management without application of chemicals and fertilisers, and without disturbance. The best sites had a hummocky, mossy, eiderdown-like appearance with deep springy turf. There was a strong association with the moss *Rhytidiadelphus squarrosus*, and the presence of Heath Bedstraw, *Galium saxatile*, often coincided with good waxcap assemblages. Many of the best waxcap sites were the older parts of Victorian and Edwardian cemeteries.

2. Results: the best sites

The full results of my Autumn 2023 waxcap surveys are on the appended spreadsheet. This also has waxcap records for sites other than churchyards or cemeteries, which I have included for completeness. The spreadsheet also includes some other fungi found in the churchyards and cemeteries, and list of all churchyard and cemetery site visited.

The top sites, with more than 5 waxcaps present, were these.

No. of waxcap species	
10	Ibstock Cemetery
9	Coalville, Broom Leys Cemetery
9	Coleorton, Church Town, St John's chapel yard
9	Whitwick Cemetery
8	Hugglescote Cemetery
7	Ashby-de-la-Zouch Cemetery
7	Donisthorpe Cemetery
7	Loughborough Old Cemetery
7	Markfield Cemetery
7	Oaks in Charnwood, St James the Greater churchyard
7	Thringstone, St Andrew's churchyard
7	Woodhouse Eaves, Church Hill Cemetery
6	Ibstock, St Denys' churchyard
6	Measham Cemetery
6	Shepshed Cemetery
5	Normanton le Heath, Holy Trinity churchyard
5	Packington, Holy Rood churchyard
5	Swannington, St George's churchyard

Table 1: The top waxcap sites found in the Autumn 2023 surveys.

These sites are clustered in the Charnwood Forest and North-West Leicestershire former coalfield area. Additional notes and a map of each of these top sites are in the Appendix 1.

Waxcaps were recorded incidentally in a few sites outside the target churchyards or cemeteries – at Thornton Meadow, Ulverscroft, Bradgate Park, Dimminsdale and Manor Farm field in Bagworth. Waxcaps were harder to find on these sites, and colonies were dispersed; in fact, these site visits were slightly disappointing with respect to waxcaps. The deer-cropped grasslands near the covered reservoir at Bradgate Park were the most rewarding. A few rain-damaged and unidentifiable waxcaps were found at Altarstones, which was no longer being grazed. No waxcaps were found in Thornton Meadow, which has not been cut for several years.

Map 1: Cemetery/churchyard sites visited, and numbers of waxcaps. Darker colour indicates higher numbers.

3. Results: Waxcap species

All the species below are considered to be common or widespread species often recorded in Leicestershire. All photographs by the author.

Meadow Waxcap (*Cuphophyllus pratensis)*
Easy to identify. (image: left)
Occasional, and sometimes in longer grass, and of large size. Easy to identify by the dry apricot or pink-brown colour of the cap, with paler stipe and paler gills on young specimens. Older specimens had strongly decurrent gills that were almost concolorous with cap.

Snowy Waxcap (*Cuphophyllus virginea).*
Easy to identify. (image: left)
Common, and found in most sites, occasionally abundant. Found less often later on in the survey period. Decurrent gills, slightly greasy cap and drier stipe. White, fawn and off-white examples found; I did not attempt to identify sub-species.

Slimy Waxcap (*Gliophorus irrigatus)*
Fairly easy to identify (image: left)
Probably not very common but a few clumps found in many sites earlier in the surveys; may have disappeared later in November. Extremely slimy pale grey-brown species with paler gills – cap and stipe so slimy that it is difficult to pick up.

Heath Waxcap (*Gliophorus laetus*)

Fairly easy to identify. (images: left) Uncommon/rare in churchyards/cemeteries. The habitat of unimproved acid grassland or heath is rarely found in churchyards or cemeteries, but it was present on one site – St John's chapel yard in Coleorton, where there is some of this habitat. Small, viscid, golden-brown caps with pale greying decurrent gills.

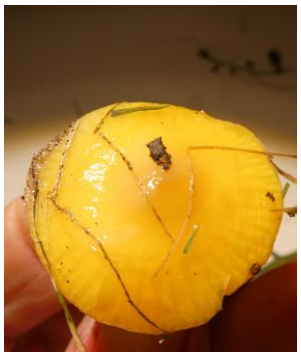
Parrot Waxcap (*Gliophorus psittacinus)*

Easy/ Fairly easy to identify (images, left).
Common, often as isolated individuals; generally easy to identify as long as some green colour remains. It was also found with pale yellow/peachy-coloured caps and stipe, both very slimy, and usually with a trace of green under the gills and at the top of the stipe; the green slime colour washes off in rain. Without care, these could be confused with Golden Waxcap or other slimy species. Green specimens are quite well camouflaged in grass, and may be overlooked.

Butter Waxcap (*Hygrocybe ceracea)*

Tricky; identifiable with care from field characteristics (images, left).
Common, sometimes abundant with large colonies. Still producing new caps in late November. It can be hard to separate from several other yellow waxcaps. A greasy (not viscid) cap, and dry-ish stipe; translucent centre and radial marks, usually decurrent gills; new caps often bright orange. Some specimens had a slightly unpleasant smell, which may be the smell described by some authors as bed-bugs. I have never smelt these . . . however, the smell was (to me) similar to coriander leaves, which are said to smell of bugs (the Greek word 'koris' = bug)

Golden Waxcap (*Hygrocybe chlorophana)*



Tricky; identifiable with care from field characteristics (images, left).
Frequent early on the survey, but less so later in November. Can be difficult; very variable, and I rejected a lot of yellow waxcaps; other species could be present. Often in small groups. The very sticky cap and stipe and adnate gills separate it from the equally common Butter Waxcap. It becomes paler yellow as it ages.

Scarlet Waxcap (*Hygrocybe coccinea*)
Tricky; identifiable with care from field characteristics (image, left)
Frequent and occasionally with larger colonies. Rounded slightly viscid/greasy caps, becoming drier, with minutely nodulose texture; smooth red stipes with orange/yellow bases.
Several other red or crimson waxcaps exist and have been recorded in VC55. I found several colonies of red waxcaps with umbonate caps that became yellow after being collected or when over-mature, and with fibrillose stems; these may have been a different species but I was unable to identify them with confidence; they appear in the data summary as 'a red waxcap'.

Crimson Waxcap *(Hygrocybe punicea*)
Tricky; identifiable with care from field characteristics (images: left)
May be commoner than records suggest. Some of the red waxcaps present in cemeteries may be this. Usually larger than the very similar Scarlet Waxcaps. Present in St John's chapel yard, Coleorton, and in cattle-grazed grassland at Manor Farm LWS in Bagworth; these colonies clearly had a white base to the fibrillose stipe and a yellowing greasy cap; older specimens are a yellowy-buff colour, sometimes retaining a red rim. The colour of caps is variable and may be brighter than the dark red or blood-red described by some authors, but is rarely scarlet. Still present in late November.

Blackening Waxcap *Hygrocybe conica*
Easy to identify (images: left)
Occasional; greasy conical red-orange to yellow caps, soon blackening. I did not find this species in the latter half of the survey period.

Vermilion/Garlic Waxcap (*Hygrocybe miniata/helobia)*

Species pair fairly easy to identify, in this habitat; microscopy needed to separate two species (image: left)
Not found during this survey in churchyards or cemeteries, but a small colony in heathy acid grassland at Ulverscroft. The two species are very hard to separate. Both have a red cap with scurfy scales, unlike most other red species, and adnate gills, and both have been recorded from Ulverscroft in the past. The specimens were not garlic-scented, unlike *H helobia* is said to be, and had blunt scales, which is said to more typical of *H miniata*. A similar species, *H calciphila*, is found in calcareous grasslands and was therefore discounted.

Honey Waxcap (*Hygrocybe reidii)*

Fairly easy to identify, as long as checked for scent of honey. Images: left)
Occasional, and sometimes locally frequent, with small colonies. Dry reddish- or pinkish-orange cap fading to paler dull orange. The mature caps often flaking. The name refers to the smell, not colour; the crushed stipe and cap has a pleasing scent of honey. Gills usually decurrent.

Cedarwood Waxcap *(Hygrocybe russocoriacea)*

Easy to identify as long as scent is noted; difficult to ID from a photo. (image: left)
Uncommon; found in one cemetery site (Whitwick); maybe be overlooked due to similarity to Snowy Waxcap. Sticky/greasy cap and dry stipe. Strongly scented with cedar oil (as in some pencil wood) and said to be smaller than Snowy Waxcaps. Also found on Bradgate Park and Manor Farm field in Bagworth.

Pink Waxcap (*Porpolomopsis calyptriformis)*.

Easy to identify (images: left).
Fairly common in cemeteries, with dispersed colonies. Conical caps, soon spitting and often curling upwards. The only truly pink waxcap, smetimes pale, or peachy-coloured. Many specimens much larger than other species. Still appearing late November; new caps are bullet-shaped and emerge from the turf looking like rocket-cones. 'Vulnerable' IUCN status; stronghold in UK.

Other waxcaps
I was unable to identify numerous waxcaps. Some that I found were over-mature and rain-damaged. The following species are likely to be present in churchyards and cemeteries in my survey area in addition to the above, but would either require expert verification or better specimens:
Oily Waxcap (*Hygrocybe quieta)*
Spangle Waxcap (*Hygrocybe insipida*)
Fibrous Waxcap (*Hygrocybe intermedia*)
Persistent Waxcap (*Hygrocybe acutoconica*)

4. Other species of fungi

I did not attempt to identify all other species of fungi.

Clubs and Corals were occasionally recorded because these are also considered to indicate conservation-quality grasslands. Meadow Coral (*Clavulinopsis corniculatus*) was frequent, and White Spindles (*Clavaria fragilis*) were occasionally found in similar habitats to waxcaps. A yellow club, either *Clavulinopsis helvola* or *C luteoalba,* is almost ubiquitous, but I could not identify to species. Beige Coral (*Clavulinopsis umbrinella*) was found in Markfield Cemetery, but requires confirmation; the specimen has been dried and retained. Golden Spindles (*Clavulinopsis fusiformis*) are occasional, but can be confused with the yellow clubs.

A few *Entoloma* were confirmed by spore-prints, but not identified to species. These also indicate high quality grasslands.

One small colony of Earth-tongues (*Geoglossum)* was found in Osgathorpe churchyard, species unidentified. This churchyard was not good for waxcaps, with only one damaged and unidentifiable species found. (NB: Min and Tim Bell also found some in Packington churchyard in late November).

Two easily identified species of non-waxcaps were often found in association with waxcaps in mossy lawn turf: the Ivory Bonnet (*Atheniellla (Mycena) flavoalba*) and the Earthy Powdercap (*Cystoderma amianthinum*). A few Orange Moss-cap (*Rickenella fibula*) were found, and one site had Collared moss-cap (*Rickenella swartzii*.)

Sites with high waxcap diversity could be assumed to have high grassland fungal diversity overall, but this is not necessarily the case. However, I am sure that the top waxcap cemeteries would be worth further expert survey for their grassland fungi.

5. Survey limitations

I approached this as a general naturalist, not as an expert in fungi identification. I had neither the time nor the skill to examine spores, as required for identification of some species. Many of the waxcaps I found were impossible to identify with confidence; some of the yellow and red waxcaps being particularly difficult. It is likely that I have missed some species. The section below covers some of the identification sources I tried out.

My results are skewed to my area of Leicestershire; I haven't looked in any eastern or southern parts of Leicestershire, or in Rutland. Although I looked at many churchyards and nearly all cemeteries in the target area, the survey was not comprehensive. Most sites received only one visit; it is usually recommended that several visits are made. Most of the grasslands were mesotrophic, tending towards acidic in North-West Leicestershire and Charnwood Forest area. I did not look at any neutral-basic grassland.

6. Identification resources

I was unable to find a single identification resource that enabled me to identify all the specimens that I found.

There is occasional inconsistency in species descriptions between sources; no doubt due to the variability of waxcaps in terms of colour, texture, shape, smell, etc. Some characteristics of scent, taste and colour are subjective. Note also the genus *Hygrocybe* has now been split into *Hygrocybe, Cuphophyllus, Gliophorus, Neohygrocybe, Porpolomopsis* and *Gloioxanthomyces*, and nomenclature varies between sources.

The on-line multi-access key developed by Sussex BRC and an on-line key/guidance from the University of Wales in Aberystwyth were initially useful in helping identify the easier species.
https://www.aber.ac.uk/waxcap/what/key-main.shtmlrefs on 31st October 2023
https://sxbrc.org.uk/recording/keys/waxcaps/vis.html on 31st October 2023

The variability of waxcaps seems to lend itself to a multi-access key. I found the Sussex BRC key to be helpful for easier species, but of less use and potentially misleading for the difficult species. The temptation to tweak values to get the 'right' answer was hard to resist. I found the Aberystwyth key and Leonard keys of less help – mainly because the initial separation into 'dry' or 'viscid' cap/stipe does not take into account greasy caps or the changes in cap texture as the specimens emerge and mature.

Pat O'Reilly's First Nature website has some very helpful field ID hints (https://www.first-nature.com/fungi/~hygrophoraceae.php

Identification was backed up several widely available books:

- Grassland Fungi (Elsa Wood & Jon Dunkelman, 2017)
- Collins' field guide to British Mushrooms and Toadstools (Sterry & Hughes, 2009)

- Roger Phillips' photographic guide to Mushrooms (2nd edition, 2006)
- Collins' field guide to Mushrooms and Toadstools of Britain and Europe (Courtecuisse & Duhem, 1986). Now out-of-print.

All these resources are aimed at the general naturalist. Courtecuisse & Duhem includes a key, which was helpful, although the inclusion of European fungi adds to complexity, and the illustrations are not very clear. Roger Phillips' book has excellent photographs, mainly of collected specimens, showing fungi in various stages of growth, but unaccountably does not include one of the commoner species, *Hygrocybe chlorophana*. Wood & Dunkelman and Sterry & Hughes have good field photos, but these rarely show details of gills and stipe texture, which are important for identification.

Wood & Dunkelman's Grassland Fungi, the Sussex and the Aber keys were developed to suit a specific geographic area, probably richer in waxcap fungi than VC55. I am not sure whether this would affect use of the keys in VC55 in a significant way.

The standard work on waxcaps (The genus *Hygrocybe*, by David Boertmann, 1995) is no longer in print, and I haven't been able to find a copy to refer to. This is aimed at the expert mycologist. Most of the keys and guidance listed above cite this work as their main source of information.

7. Waxcap habitats

The ideal grassland habitat for waxcaps in churchyards and cemeteries is regularly mown, undisturbed and has a hummocky, mossy, eiderdown-like appearance with deep springy turf.

St John's Chapel yard, Coleorton

On the sites I visited, I rarely found waxcaps in shaded areas, under trees or where there were drifts of fallen leaves, or in areas with waterlogging or impeded drainage, or where plant species indicated high nutrient levels. Waxcaps were rarely present in unmown or rough-cut sites. The exception was Meadow Waxcap (*Cuphophyllus pratensis*) which was occasional in longer (but not rank) grass. Long grass left to decompose into a mulch would be as detrimental to waxcaps as it would be to

wildflowers. Churchyards where the headstones had been moved were less likely to be of value, presumably because of disturbance.

Woodhouse Eaves, Church Hill Cemetery

Many waxcap species seemed to prefer grasslands where abundant *Rhytidiadelphus squarrosus* (image: left) and *Pseudoscleropodium purum* moss was found, creating a springy, moisture-retentive turf that could be up to 20cm deep, despite being closely mown. This association has been noted by many authors (e.g. see Griffith et al, 2003). This may be because the moss and the waxcaps benefit from the same environmental conditions, or because the moss creates ideal conditions for waxcaps. A closer relationship is possible, and waxcaps may be saprophytic on this moss. The association was so marked that looking for waxcaps in places without abundant *Rhytidiadelphus squarrosus* was rarely productive.

The presence of Heath Bedstraw *(Galium saxatile*) was often a good indicator of waxcap diversity. It is an acid grassland indicator species. This habitat was found in a fragmentary form in several sites, but St John's, Coleorton (Church Town) was the only site visited with a continuous and significant area of acid grassland; it also had a very good waxcap species assemblage.

Waxcap assemblages and numbers were usually best in the oldest part of cemeteries and the sunnier side of a churchyard, usually the south and west sides. Mesotrophic/acid LWS grassland indicator species are often commonest here, and this may represent the oldest and least disturbed area of a churchyard.

The results of the surveys confirmed the widespread and generally accepted idea that high numbers of waxcaps indicate species-rich grasslands on conservation value. All the top sites had moderately species-rich grassland, several meeting current Local Wildlife Site criteria for mesotrophic grassland. The converse is not true: not all species-rich grasslands are good for waxcaps – hay meadows and floodplain or wet grasslands, for example, would be poor for waxcaps.

8. Management for Waxcaps

All sources agree that a long continuity of lawn maintenance, with removal of cuttings, is needed for good waxcap assemblages. However, they will not thrive if raking, scarifying, fertilising, herbicide treatment, liming, reseeding or other disturbance happens. Application of a moss-killer would be very harmful.

Long grass and hay-meadows are not good for waxcaps. Grassland could be allowed to grow longer in spring and summer, to allow wild-flowering, but regular lawn-mowing and collection of cuttings would need to be reinstated in midsummer to provide the right conditions for waxcaps.

If the turf has a good growth of *Rhytidiadelphus squarrosus* moss, it should be ideal for waxcaps. Older cemeteries may be better for waxcaps because of continuous lawn maintenance over decades, and lack of disturbance to older areas. Churchyards may have experienced periods of where lawn maintenance ceased, especially amongst older, unvisited graves, and some village centre sites may also be subject to more disturbance – these factors may prevent building up of good colonies of waxcaps.

In 2023, a mild wet autumn meant that lawn mowing continued throughout the month. Most churchyards were mown before Armistice Day and Remembrance Sunday, which fell on Saturday 11th and Sunday 12th November this year. Some sites were trampled, and some damage to mossy turf from raking up fallen leaves was evident, along with mangled waxcaps. While this may not cause long-term damage to waxcaps or other grassland fungi, it prevented surveys. After a week, waxcaps appeared again, but trampling and leaf raking may be detrimental to waxcaps.

There will be some conflict in management aims for sites where good waxcap communities and species-rich wildflower grassland are both present. Allowing grassland to grow longer for flowering will inhibit production of waxcap fruiting bodies, and ultimately lead to loss of a waxcap colony. A compromise will be needed. I recommend that the areas with the best existing mossy turf continue either under regular lawn maintenance, or as 'wildflower lawns' – i.e. allowed to flower in spring/early summer, but mown regularly afterwards. This should be the case even if no waxcaps are evident in a particular year; waxcaps are known to have good years and bad years for production of fruiting bodies, but the mycelium underground will still be present.

Areas managed as wildflowers must have cuttings removed when mowing is reinstated in midsummer, to avoid harm from mulching and increasing fertility from decomposing grass. Managing grassland as a wildflower meadow requires late summer cutting and removal of hay. This regime is not favourable to waxcaps, and therefore (on sites with records of waxcap assemblages of value) I do not recommend that it is adopted.

Grazing is the other form of management that would be ideal for waxcaps as long as a short, dense turf was created. Cattle-grazing does not produce turf of this nature; sheep and deer nibble closer to the ground and create better conditions for waxcaps. Horse and ponies also graze closely, but they can damage turf, especially in fields and paddocks, and would not be ideal unless part of an extensive grazing regime over a larger area of unimproved grassland. None of the churchyards that I visited were grazed, although I have seen this in some sites outside Leicestershire.

Acknowledgements

Thanks to Min Bell for alerting me to some sites, and visiting Ulverscroft and Dimminsdale with me.

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Appendix 1: the top waxcap sites.

The sites listed below all had 5 or more waxcap species recorded during the survey period. The list in order of number of species. Full survey data is on the attached spreadsheet. Grassland survey data all from Sue Timms, unless otherwise stated. Data will be passed to Leicestershire and Rutland Environmental Records Centre (LRERC) at the end of 2023.

** = Sites already designated as LWS/cLWS for acid/mesotrophic grassland
* = New sites meeting LWS acid/mesotrophic grassland criteria
(*) = New sites likely to meet LWS acid/mesotrophic grassland criteria, but further survey needed in appropriate season

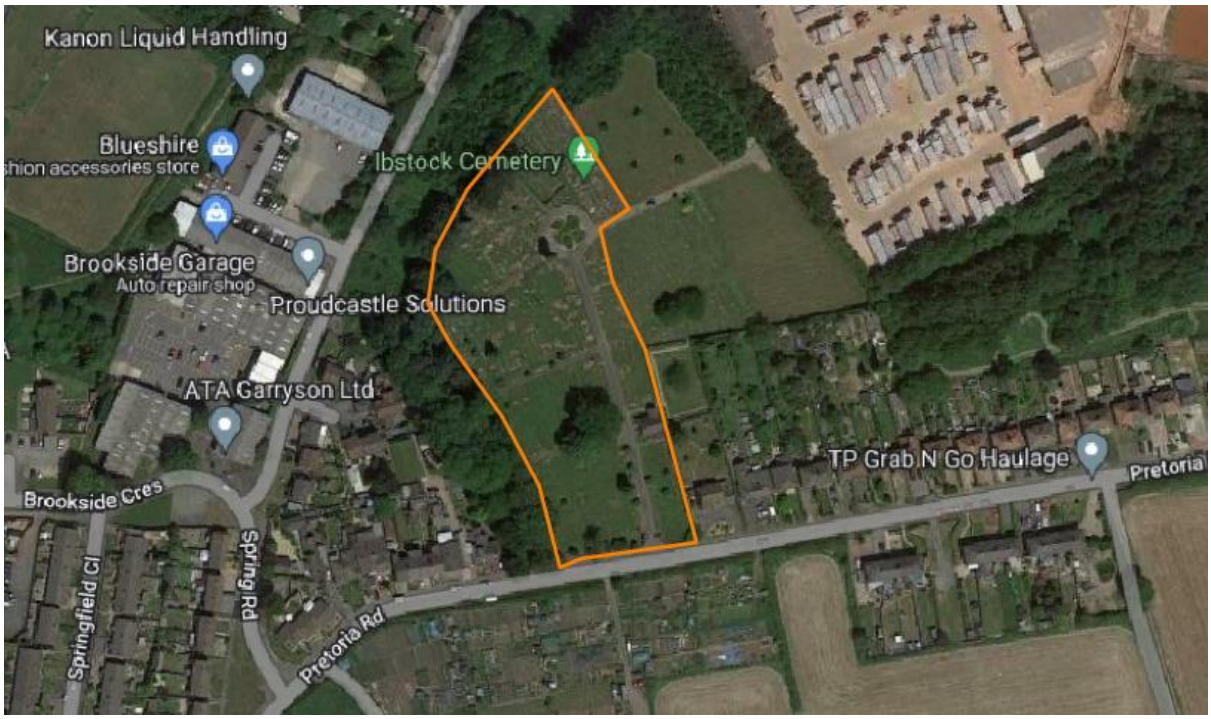
Some links to sources of information given – mainly archaeological or social history – with apologies to website owners and authors for not giving full references for these sources.

Some sites came close to the 5-waxcap threshold, and further survey may reveal more species. 4 species of waxcap were recorded in Desford St Martin's Churchyard, Hinckley Ashby Rd Cemetery, Nailstone All Saints' churchyard and Newbold Verdon St James' churchyard.
3 species of Waxcap, including Pink Waxcaps, were recorded in Quorn/Mountsorrel Cemetery and Woodhouse St Mary-in-the-Elms churchyard.

1	Ibstock Cemetery
2	Coalville, Broomleys Cemetery
3	Coleorton, Church Town, St John's chapel yard
4	Hugglescote Cemetery
5	Whitwick Cemetery
6	Ashby-de-la-Zouch Cemetery
7	Donisthorpe Cemetery
8	Loughborough Old Cemetery
9	Markfield Cemetery
10	Oaks in Charnwood, St James the Greater churchyard
11	Thringstone, St Andrew's churchyard
12	Woodhouse Eaves, Church Hill Cemetery
13	Ibstock, St Denys' churchyard
14	Measham Cemetery
15	Shepshed Cemetery
16	Normanton le Heath, Holy Trinity churchyard
17	Packington, Holy Rood churchyard
18	Swannington, St George's churchyard

1. Ibstock Cemetery (SK411106)

Large edge of settlement cemetery on Pretoria Rd, with extension area; managed by Ibstock Parish Council on land set aside in 1883. https://www.genuki.org.uk/big/eng/LEI/Ibstock



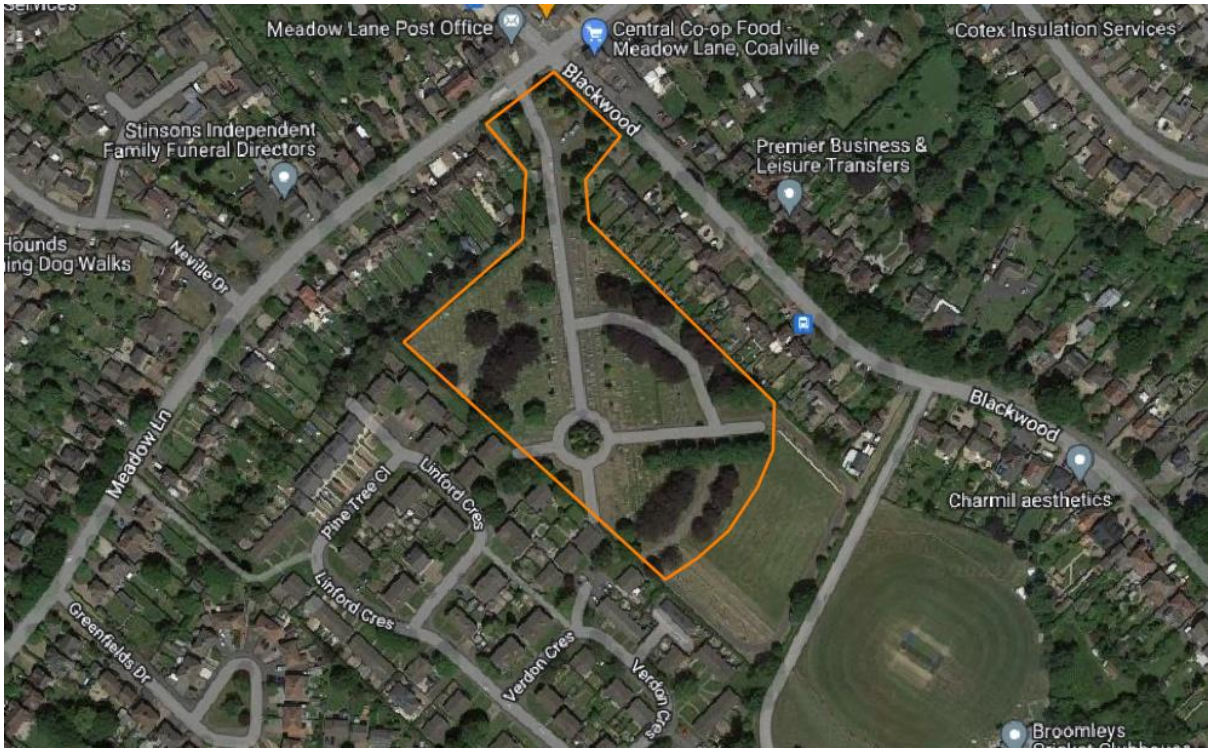
10 species of waxcap present, including a large colony of Pink Waxcaps, plus Meadow, Snowy, Slimy, Parrot, Butter, Golden, Scarlet, Blackening and Honey Waxcaps. Excellent variety and number of waxcaps, best in older parts to west (07/11/2023).

Cuphophyllus pratensis
Cuphophyllus virginea
Gliophorus irrigatus
Gliophorus psittacinus
Hygrocybe ceracea
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica
Hygrocybe reidii
Porpolomopsis calyptriformis

Grassland is moderately species-rich, several mesotrophic grassland LWS indicators found in 2023 including *Leucanthemum vulgare, Ranunculus acris, Scorzoneroides autumnalis, Rumex acetosa, Centaurea nigra* and *Lotus corniculatus* - but not quite meeting LWS criteria for grasslands.

2. Coalville, Broomleys Cemetery (SK446143)

Large suburban cemetery on NE side of town, on edge of Charnwood Forest, opened in 1927 and managed by North-West Leicestershire District Council. https://www.nwleics.gov.uk/pages/broomleys_cemetery#:~:text=It%20is%20a%20'working%20cemetery,burial%20sections%20determined%20by%20faith.



9 species of waxcaps, including occasional Pink Waxcaps, plus Meadow, Snowy, Slimy, Parrot, Butter, Golden, Scarlet and Honey Waxcaps (08/11/2023). Best in older area to north and east, and in small lawned part near entrance off Meadow Lane. Crimson Waxcap was unconfirmed, but likely.

Cuphophyllus pratensis
Cuphophyllus virginea
Gliophorus irrigatus
Gliophorus psittacinus
Hygrocybe ceracea
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe reidii
Porpolomopsis calyptriformis

Grassland is moderately species-rich, acid/mesotrophic grassland LWS indicators in 2023 including *Galium saxatile, Carex flacca, Leucanthemum vulgare, Luzula campestris, Ranunculus acris, Rumex acetosa and Ranunculus bulbosus*, but not quite meeting LWS criteria for grasslands. Also *Montia fontana* subsp. *chondrosperma*.

3. **Coleorton, Church Town, St John's Chapel yard (SK397169)

A small chapel and burial ground in rural area, with unimproved acid grassland (the only site where a significant area of this habitat was found). Designated as cLWS 72621. The chapel was built in 1857. https://www.coleortonheritage.org.uk/st-johns-chapel.html

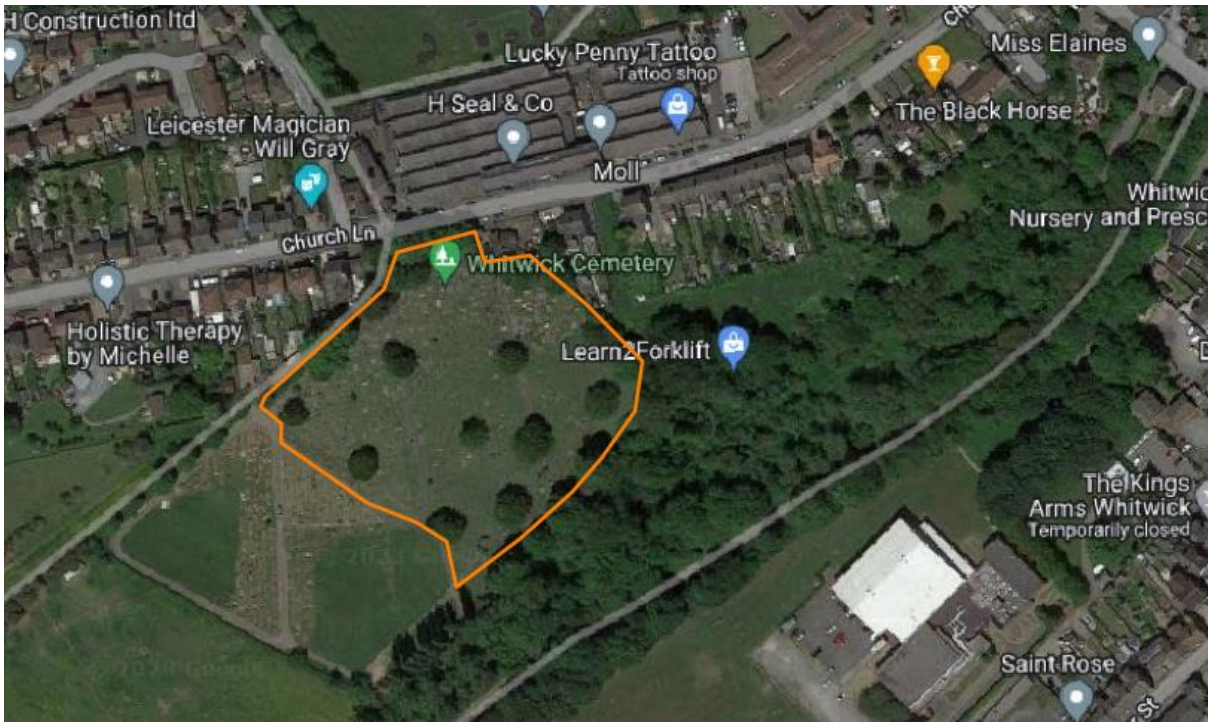
9 waxcap species: Crimson, Pink, Heath, Slimy, Butter, Parrot, Scarlet, Meadow Waxcaps, plus an unidentified yellow waxcap (22/11/2023). Likely to be more, because it was surveyed later in the survey period when some species were over.

Cuphophyllus pratensis
Gliophorus laetus
Gliophorus psittacinus
Gliophorus irrigatus
Hygrocybe ceracea
Hygrocybe coccinea
Hygrocybe punicea
Porpolomopsis calyptriformis

Grassland is species-rich, with *Potentilla erecta, Leucanthemum vulgare, Centaurea nigra, Galium saxatile, Lotus corniculatus, Rumex acetosa, Rumex acetosella.* Worth grassland re-survey in summer, and further waxcap surveys earlier in season.

4. *Whitwick Cemetery (SK432159)

Large edge of settlement cemetery, adjacent to the Grace Dieu Brook and former railway corridor, managed by North-West Leicestershire District Council. It was consecrated in 1874. https://en.wikipedia.org/wiki/Whitwick



9 waxcap species: Upper, older parts of cemetery to the north-east at the top of the hill are moderately species-rich and best for waxcaps, including Pink Waxcaps, plus Meadow, Cedarwood, Snowy, Slimy, Parrot, Butter and Honey, plus an unidentified yellow and unidentified red waxcap.(13/11/2023)

Cuphophyllus pratensis
Cuphophyllus russocoriaceus
Cuphophyllus virginea
Gliophorus irrigatus
Gliophorus psittacinus
Hygrocybe ceracea
Hygrocybe reidii

Several mesotrophic grassland LWS indicators found in 2023 including *Cardamine pratensis, Carex flacca, Galium verum, Lathyrus pratensis, Leontodon hispidus, Leucanthemum vulgare, Lotus corniculatus, Ranunculus acris, Rumex acetosa* and *Rumex acetosella*. Meets LWS criteria for grasslands.

5. **Hugglescote Cemetery (SK4212)

Large cemetery on edge of settlement, adjacent to the R Sence valley. Already designated as candidate LWS 61601, managed by North-West Leicestershire District Council. It was laid out in 1908. https://www.nwleics.gov.uk/pages/lamps_of_sacrifice_hugglescote

8 species of waxcaps: Meadow, Snowy, Slimy, Parrot, Golden, Scarlet, Blackening and Honey Waxcaps. (27/10/2023 and 13/11/2023)

Cuphophyllus pratensis
Cuphophyllus virginea
Gliophorus irrigatus
Gliophorus psittacinus
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica
Hygrocybe reidii

Grassland moderately to very species-rich; LWS mesotrophic grassland indicators present in 2023 include *Conopodium majus, Cardamine pratensis, Galium verum, Luzula campestris, Rumex acetosella, Lotus corniculatus, Ranunculus bulbosus* and *Rumex acetosa* and is notable for small quantity of Meadow Saxifrage (*Saxifraga granulata*) and *Montia fontana* subsp. *chondrosperma*.

6. **Ashby-de-la-Zouch Cemetery (SK351165)

Grassland moderately to very species-rich in upper, older part of cemetery around older graves at the top of the hill, to the north, and in cedar lawn below bank. Already designated as candidate LWS 61209; opened in 1857 and managed by Ashby-de-la-Zouch Town Council. https://www.ashbytowncouncil.gov.uk/wp-content/uploads/sites/150/2022/03/Ashby-Cemetery-Leaflet.pdf

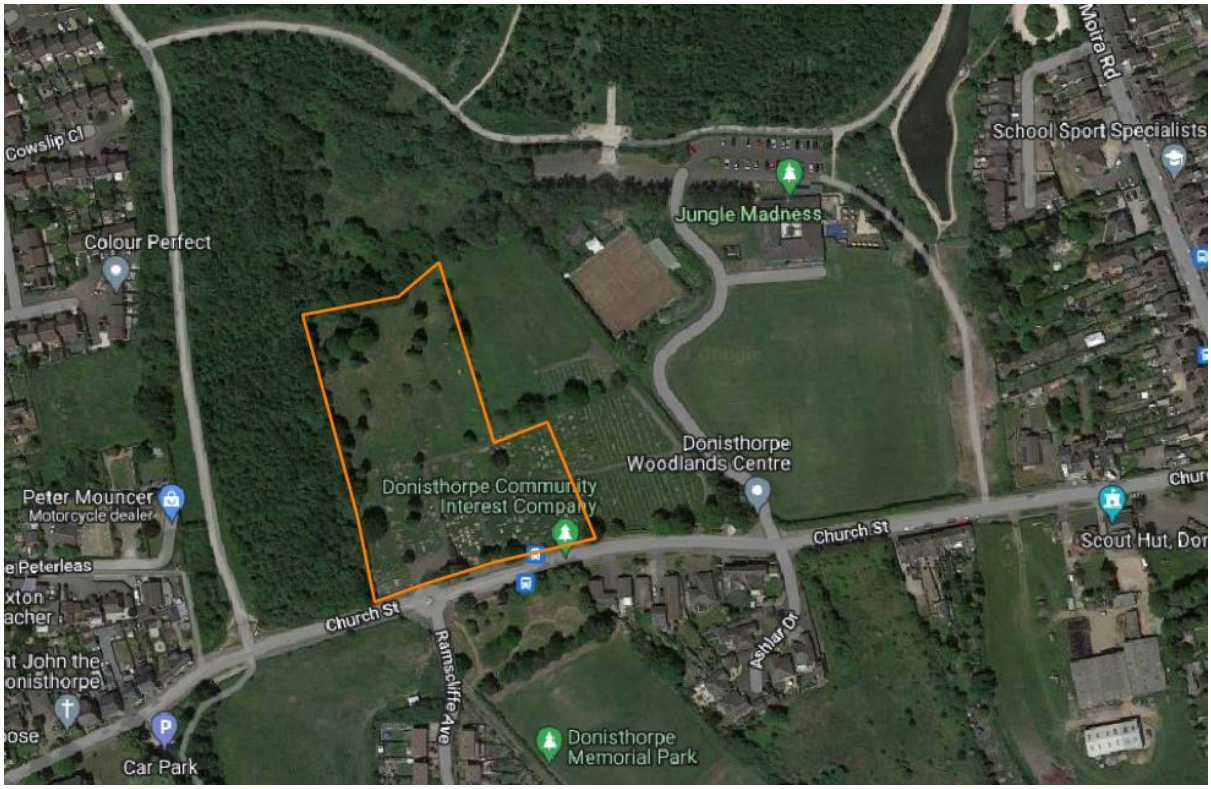
7 waxcap species, including Pink Waxcaps, plus Meadow, Snowy, Parrot, Golden, and Honey, and an unidentified yellow waxcap. (18/11/2023)

Cuphophyllus pratensis
Cuphophyllus virginea
Gliophorus psittacinus
Hygrocybe chlorophana
Hygrocybe reidii
Porpolomopsis calyptriformis

Grassland not surveyed in 2023. The LWS includes grassland to the south and west, which was not good for waxcaps. LWS indicator species recorded in 2016 include *Cardamine pratensis, Galium verum, Lathyrus pratensis, Scorzonerides autumnalis, Lotus corniculatus, Luzula campestris, Ranunculus bulbosus, Rumex acetosa* and *Trifolium pratense.*

7. **Donisthorpe Cemetery (SK316141)

Large cemetery on edge of settlement, adjacent to large area of open spa e and National Forest plantation. Already designated as candidate LWS 61010. Opened in 1875 and managed by a Burial Committee of parish councillors from Oakthorpe, Donisthorpe & Acresford Parish Council & Ashby Woulds Town Council.
https://www.odapc.co.uk/donisthorpe-cemetery.html



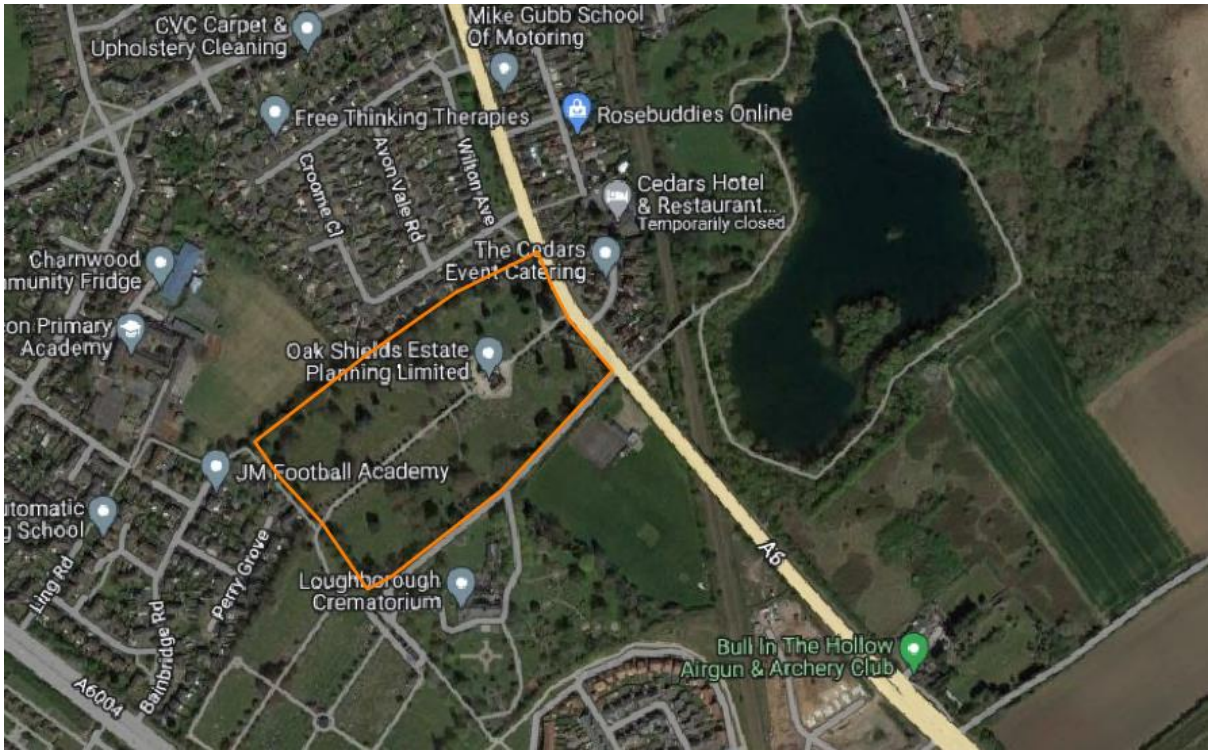
7 waxcap species, best in older part to south and west. Meadow, Snowy, Slimy, Parrot, Butter, Golden and Scarlet Waxcaps (07/11/2023)

Cuphophyllus pratensis
Cuphophyllus virginea
Gliophorus irrigatus
Gliophorus psittacinus
Hygrocybe ceracea
Hygrocybe chlorophana
Hygrocybe coccinea

Grassland moderately species-rich, with LWS mesotrophic grassland indicators in 2023 including *Centaurea nigra, Conopodium majus, Galium saxatile, Leucanthemum vulgare, Luzula campestris, Ranunculus bulbosus* and *Rumex acetosa*, plus M*ontia fontana* subsp. *chondrosperma*. Meets LWS criteria for grassland if extension is included, which has *Cardamine pratensis, Juncus effusus* and *J inflexus,* and *Ranunculus acris* in addition; but was poor for waxcaps and has been excluded from the map above.

8. *Loughborough Old Cemetery (SK5418)

Situated in large urban cemetery. The old cemetery is separated from the newer cemetery by fencing and hedges with mature trees. Opened in 1857 and managed by Charnwood Borough Council.
https://www.charnwood.gov.uk/files/documents/loughborough_cemetery_ca_appraisal/loughboroughcemeterycaappraisal.pdf



7 species of waxcaps, best along SE side: Snowy, Slimy, Parrot, Butter, Golden, Scarlet and Blackening Waxcaps. (30/10/2023)

Cuphophyllus virginea
Gliophorus irrigatus
Gliophorus psittacinus
Hygrocybe ceracea
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica

Grassland moderately species-rich, with best parts on X side alongside driveway. Grassland meets LWS criteria, with the following indicator species recorded in 2023: *Campanula rotundifolia, Cardamine pratensis, Centaurea nigra, Conopodium majus, Leucanthemum vulgare, Lotus corniculatus, Luzula campestris, Primula veris, Ranunculus bulbosus, Ranunculus acris, Rumex acetosa, Rumex acetosella, Trifolium pratense.*

9. *Markfield Cemetery (SK493102)

Moderately sized edge of settlement cemetery, well-maintained, with species-rich grassland across older part of site. Opened in 1888 and managed by Markfield Parish Council. https://www.markfieldhistory.org/post/the-village-cemetery-leicester-road

7 waxcap species, including Pink Waxcaps, plus Snowy, Slimy, Parrot, Butter, Golden and Scarlet Waxcaps; best in NW area. (28/10/2023 and 07/11/2023)

Cuphophyllus virginea
Gliophorus irrigatus
Gliophorus psittacinus
Hygrocybe ceracea
Hygrocybe chlorophana
Hygrocybe coccinea
Porpolomopsis calyptriformis

Possible Beige Coral; needs confirmation.

Grassland is species-rich and meets LWS criteria, with indicator species recorded in 2023: *Alchemilla filicaulis* subsp. *vestita, Cardamine pratensis, Centaurea nigra, Conopodium majus, Galium verum, Juncus effusus, Leucanthemum vulgare, Lotus corniculatus, Luzula campestris, Ranunculus bulbosus, Ranunculus acris* and *Rumex acetosa.*

10.*Oaks in Charnwood, St James the Greater churchyard (SK472163)

A small rural churchyard within Charnwood Forest, close to Charnwood Lodge NR. The church was built in 1815 and rebuilt and enlarged in 1883.
https://en.wikipedia.org/wiki/Oaks_in_Charnwood

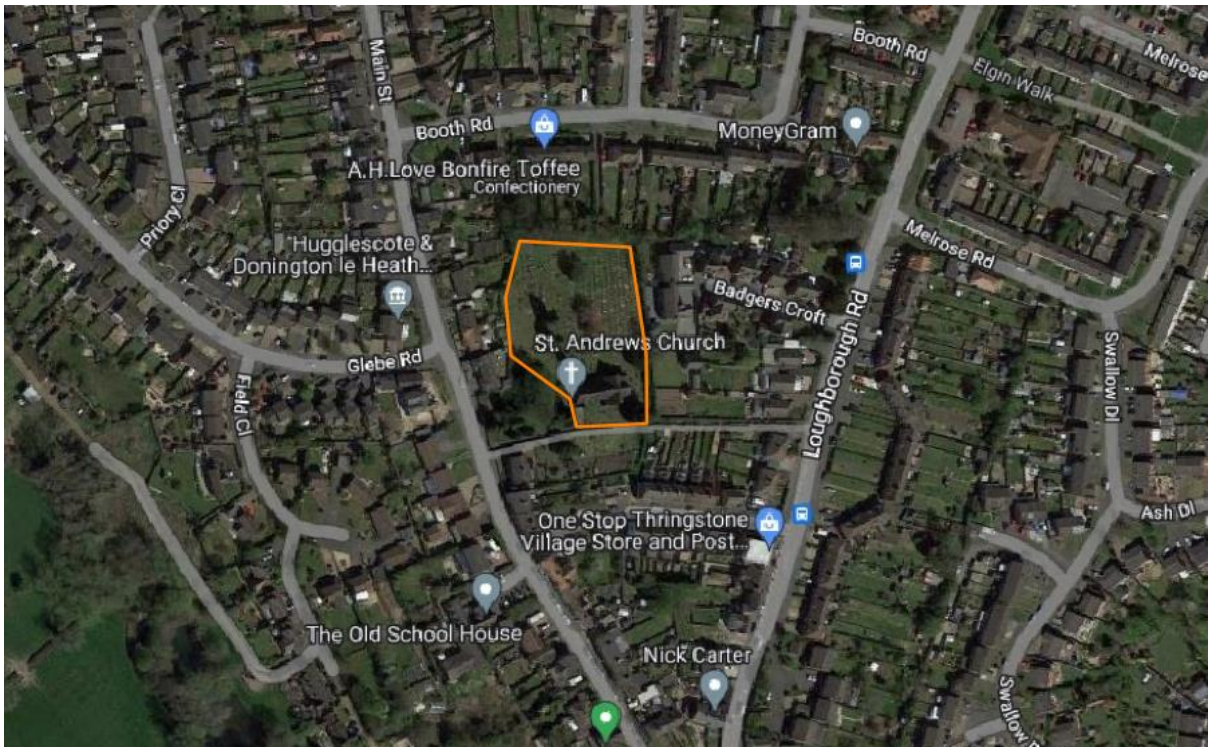
7 waxcap species: Meadow, Snowy, Slimy, Butter, Golden, Scarlet and Blackening Waxcap (30/10/2023)

Cuphophyllus pratensis
Cuphophyllus virginea
Gliophorus irrigatus
Hygrocybe ceracea
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica

Well maintained and with species-rich mesotrophic/acid grassland meeting LWS criteria, with indicators species recorded in 2023 including *Cardamine pratensis, Centaurea nigra, Conopodium majus, Galium saxatile, Galium verum, Leucanthemum vulgare, Lotus corniculatus, Luzula campestris, Ranunculus bulbosus, Ranunculus acris, Rumex acetosa, Rumex acetosella* and *Veronica officinalis.*

11.(*) Thringstone, St Andrew's churchyard (SK426174)

Small suburban churchyard. The church was built in 1862.
https://historicengland.org.uk/listing/the-list/list-entry/1061386?section=official-list-entry



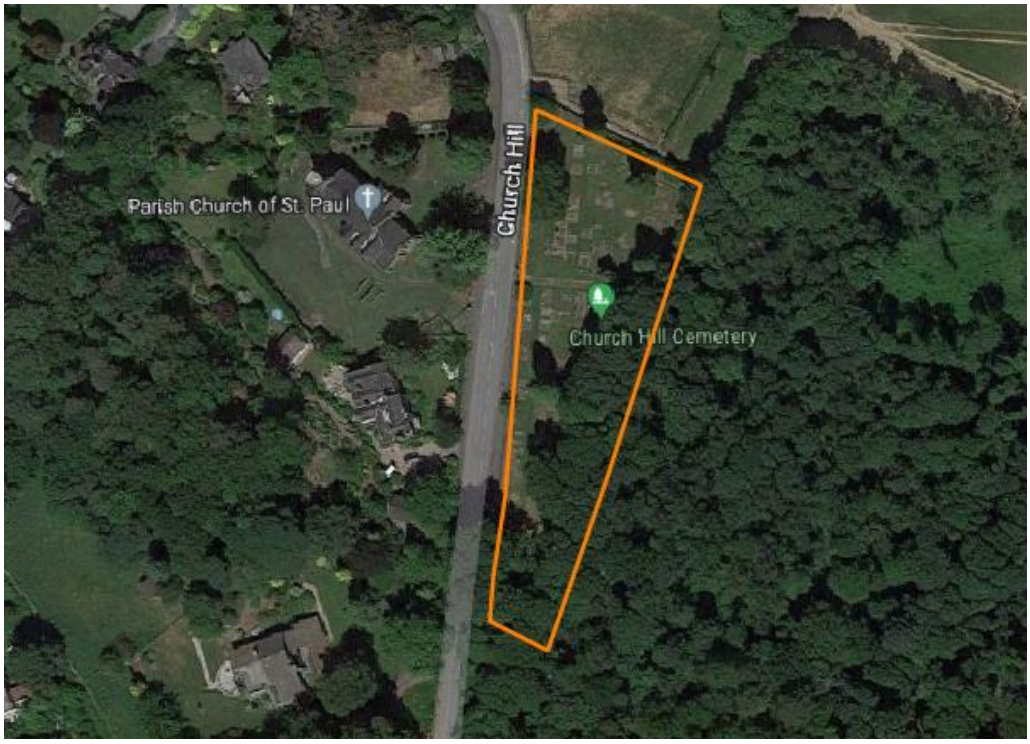
7 waxcap species, mainly in SE corner: Meadow, Snowy, Slimy, Parrot, Butter, Golden and Scarlet Waxcaps (31/10/2023).

Cuphophyllus pratensis
Cuphophyllus virginea
Gliophorus irrigatus
Gliophorus psittacinus
Hygrocybe ceracea
Hygrocybe chlorophana
Hygrocybe coccinea

Variable quality grassland, some moderately species-rich, some quite poor. SW corner unmown and excluded from candidate LWS. Some grassland damaged by excessive herbicide use around graves. Several LWS acid/mesotrophic indicator species recorded in 2023 including *Cardamine pratensis, Conopodium majus, Galium saxatile, Leontodon autumnalis, Luzula campestris, Ranunculus acris, Rumex acetosa, Rumex acetosella,* but area of best grassland may be too small to qualify as LWS. Also has *Montia fontana* subsp. c*hondrosperma*

12.(*) Woodhouse Eaves, Church Hill Cemetery (SK532140)

Small village cemetery opposite church. New graves in extension area to north, excluded from map below. Assumed to be managed by the Parish Council. I have not been able to find out when it was created as an extension to St Pauls churchyard, across the road, but there are Commonwealth War Grave from the First World War. https://www.cwgc.org/visit-us/find-cemeteries-memorials/cemetery-details/41223/woodhouse-eaves-st-paul-churchyard-extension/



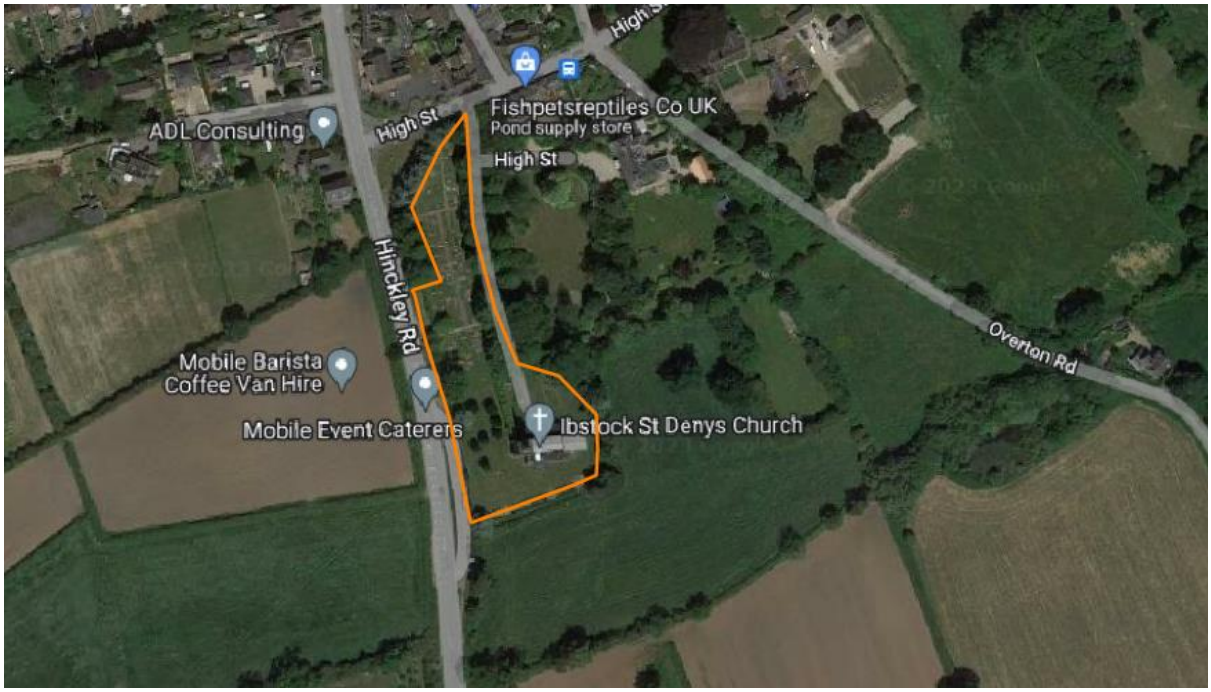
7 Waxcaps, including a few Pink Waxcaps, plus Meadow, Snowy, Slimy Parrot, Butter and Golden Waxcaps (10/11/2023 and 15/11/203).

Cuphophyllus pratensis
Cuphophyllus virginea
Gliophorus irrigatus
Gliophorus psittacinus
Hygrocybe ceracea
Hygrocybe chlorophana
Porpolomopsis calyptriformis

Species-rich grassland, but surveyed in late November 2023; needs a return visit in summer to see if it meets LWS criteria for acid/mesotrophic grassland. Grassland indicator species include *Galium saxatile, Stachys officinalis* and *Leucanthemum vulgare*, plus *Ajuga reptans* and *Veronica montana.*

13.Ibstock, St Denys' churchyard (SK404095)

Large churchyard on edge of town, well used and well maintained. The church dates from the 14th century, with Victorian restoration. https://www.leicestershirechurches.co.uk/ibstock-st-denys/



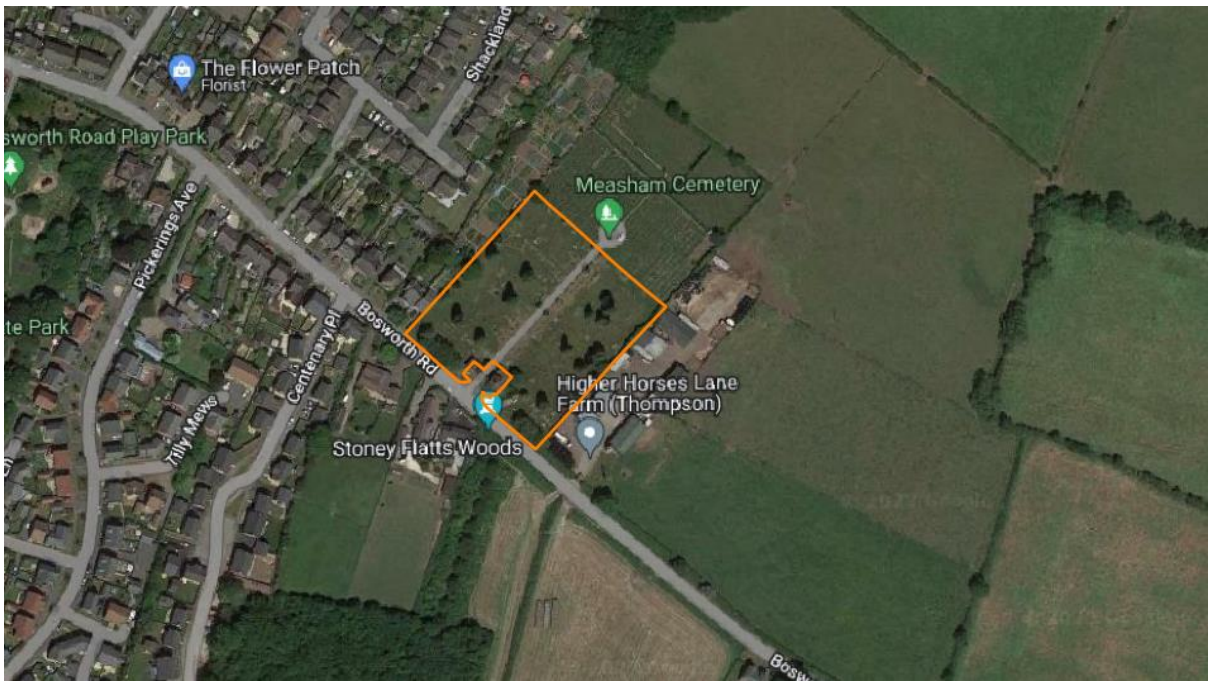
6 waxcap species, mainly in southern area closest to Hinckley Road: Snowy, Meadow, Parrot, Butter, Golden and Scarlet Waxcaps (19/11/2023).

Cuphophyllus pratensis
Cuphophyllus virginea
Gliophorus psittacinus
Hygrocybe ceracea
Hygrocybe chlorophana
Hygrocybe coccinea

Grassland moderately species-rich but not surveyed in 2023; unlikely to meet LWS criteria. In June 2016, Steve Woodward and Helen Ikin recorded the following indicator species: *Ranunculus acris, Ranunculus bulbosus, Conopodium majus, Rumex acetosa* and *Luzula campestris.*

14.**Measham Cemetery (SK339119)

Large cemetery on edge of town, well used and well maintained. Already designated as LWS 62576. Opened in 1882 and managed by Measham Parish Council. https://www.meashamparishcouncil.gov.uk/cemetery#:~:text=History,over%20used%20at%20the%20time).



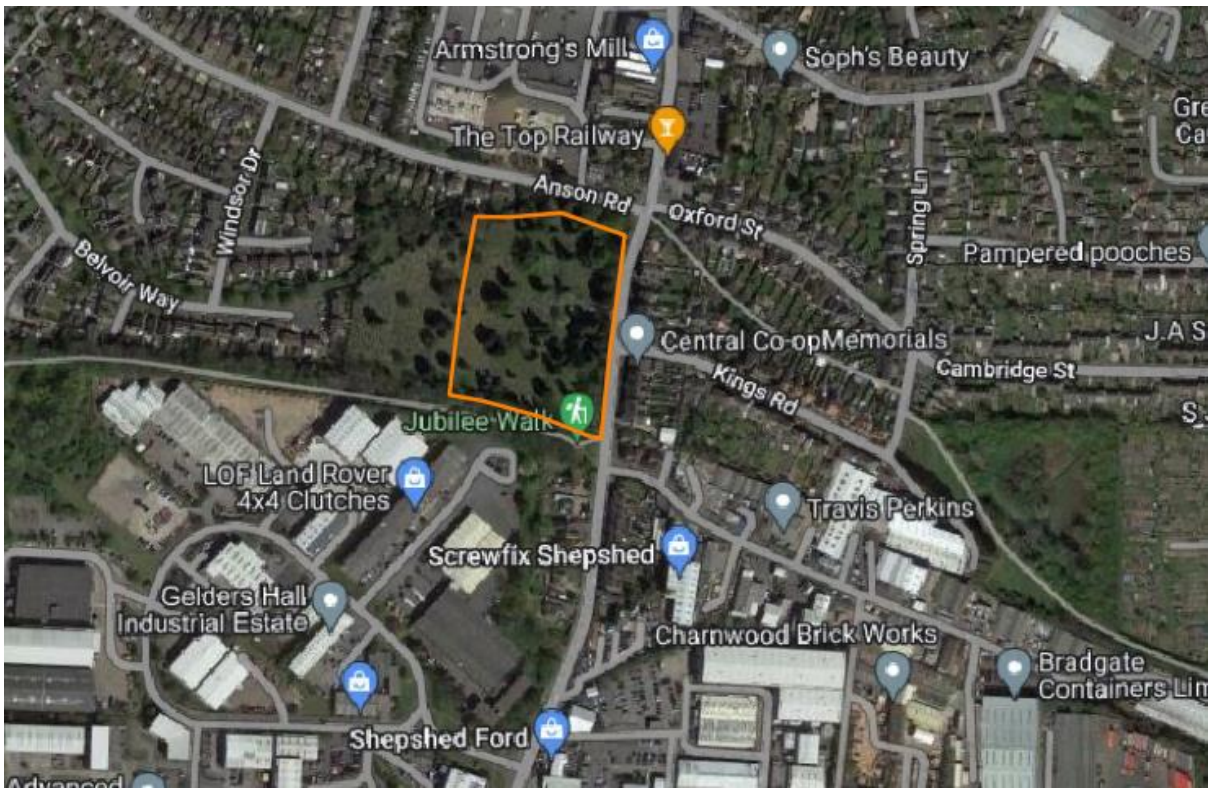
6 waxcap species, mainly in older southern area closest to Bosworth Road. Including Pink Waxcaps, plus Meadow, Snowy, Golden, Scarlet and Honey waxcaps (07/11/2023).

Cuphophyllus pratensis
Cuphophyllus virginea
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe reidii
Porpolomopsis calyptriformis

Grassland moderately species-rich, with acid/mesotrophic indicator species. Not surveyed in 2023; when visited in 2020, barely met LWS criteria, but included *Campanula rotundifolia, Galium saxatile, Lotus corniculatus* and R*umex acetosella*. The cLWS includes the northern part of the main cemetery, with modern burials, but this was poor for waxcaps and is excluded from the map above.

15.*Shepshed Cemetery (SK475187)

Large suburban cemetery, well used and maintained. Opened in 1876 and managed by Shepshed Town Council.
https://www.genuki.org.uk/big/eng/LEI/Shepshed#:~:text=The%20cemetery%20was%20formed%20in,It%20had%20two%20mortuary%20chapels.



6 species of Waxcap, including a few Pink Waxcaps and Snowy, Slimy, Golden, Scarlet and Honey Waxcaps, mainly in eastern area, the oldest part. (14/10/2023 and 28/10/2023)

Cuphophyllus virginea
Gliophorus irrigatus
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe reidii
Porpolomopsis calyptriformis

The eastern part meets LWS criteria for species rich grassland, indicator species in 2023 include *Campanula rotundifolia, Cardamine pratensis, Conopodium majus, Galium verum, Leucanthemum vulgare, Luzula campestris, Ranunculus bulbosus, Leontodon hispidus* and *Galium saxatile*.

16.Normanton le Heath, Holy Trinity churchyard (SK377127)

Small village churchyard. The church dates from the 13th century.
https://historicengland.org.uk/listing/the-list/list-entry/1074376

5 species of waxcap: Snowy, Slimy, Parrot, Butter and Honey waxcaps (18/11/2023).

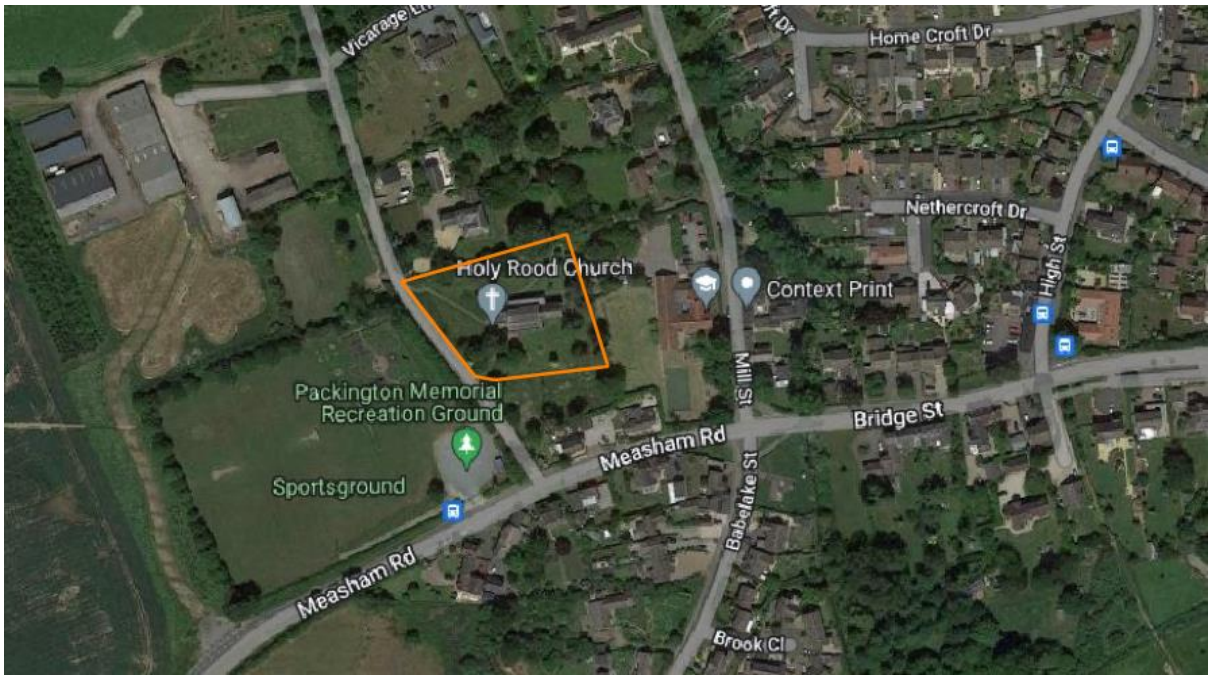
Cuphophyllus virginea
Gliophorus irrigatus
Gliophorus psittacinus
Hygrocybe ceracea
Hygrocybe reidii

Moderately species-rich grassland but not surveyed in 2023; unlikely to meet LWS criteria.

In May 2015, LWS grassland indicators *Conopodium majus* and *Luzula campestris* were recorded. Steve Woodward and Helen Ikin recorded *Cardamine pratensis* in June 2016.

17.**Packington, Holy Rood churchyard (SK358144)

Small village churchyard, already designated as cLWS 61016. The church dates from the 13th century. https://historicengland.org.uk/listing/the-list/list-entry/1361255?section=official-list-entry



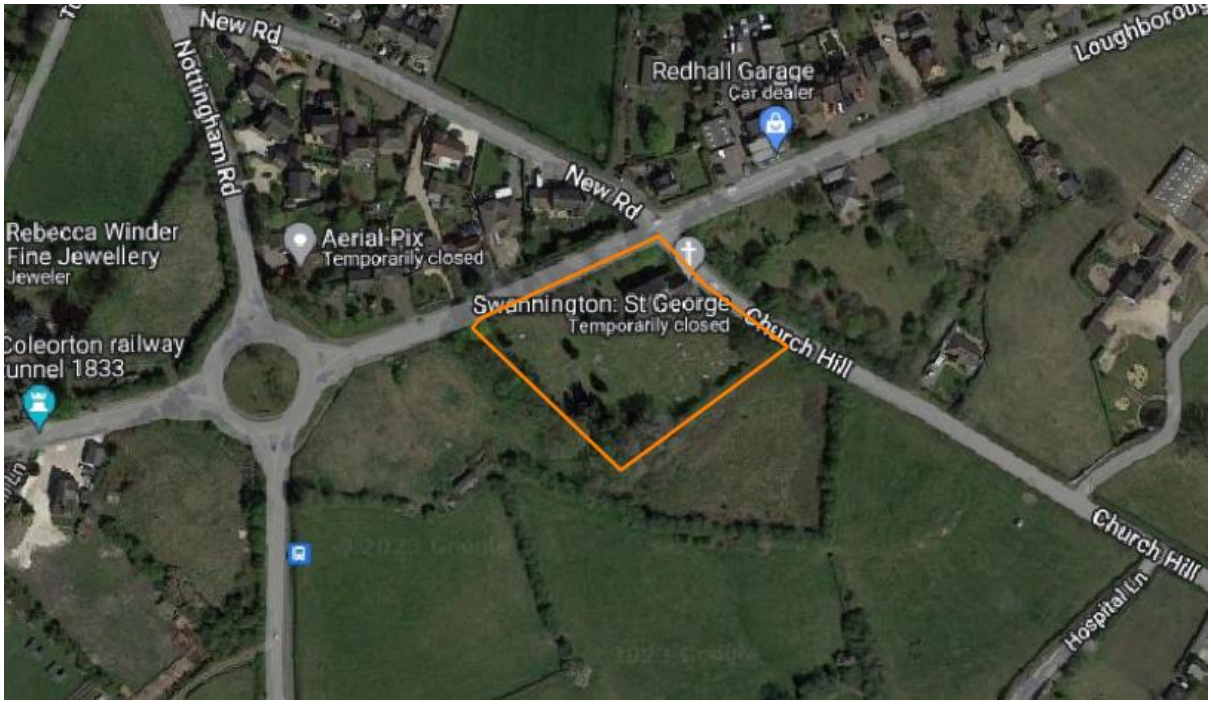
5 species of waxcap: Meadow, Slimy, Butter, Golden and Honey waxcaps. (18/11/2023)

Cuphophyllus pratensis
Gliophorus irrigatus
Hygrocybe ceracea
Hygrocybe chlorophana
Hygrocybe reidii

Grassland not surveyed in 2023, but is known to be species-rich; in 2022 *Galium saxatile, Campanula rotundifolia, Galium verum, Leucanthemum vulgare, Ranunculus acris, Rumex acetosa* and *Rumex acetosella* were recorded. The southern section of the LWS is managed as wildflower grassland, and was not good for waxcaps; it has been excluded from the map above.

18.(*) Swannington, St George's churchyard (SK414174)

Small rural churchyard, church built in 1825.
https://swannington-heritage.co.uk/swannington-history/religion/church-of-england-st-georges-church/



5 waxcap species: Snowy, Slimy, Parrot, Butter and Golden waxcaps (31/10/2023).

Cuphophyllus virginea
Gliophorus irrigatus
Gliophorus psittacinus
Hygrocybe ceracea
Hygrocybe chlorophana

Grassland moderately species-rich, but surveyed out of optimum season in October 2023; a return visit in summer is needed. May meet LWS criteria. Grassland indicator species include *Cardamine pratensis, Galium saxatile, Scorzoneroides autumnalis, Ranunculus acris, Rumex acetosa* and *Rumex acetosella.* In June 2016, Steve Woodward and Helen Ikin recorded LWS indicator species *Conopodium majus, a*nd in May 2020 Steve Woodward recorded indicator species *Lotus corniculatus* and *Luzula campestris.*