

Holy Trinity Churchyard, Prestwood

Its Natural History and Proposal for a Nature Reserve

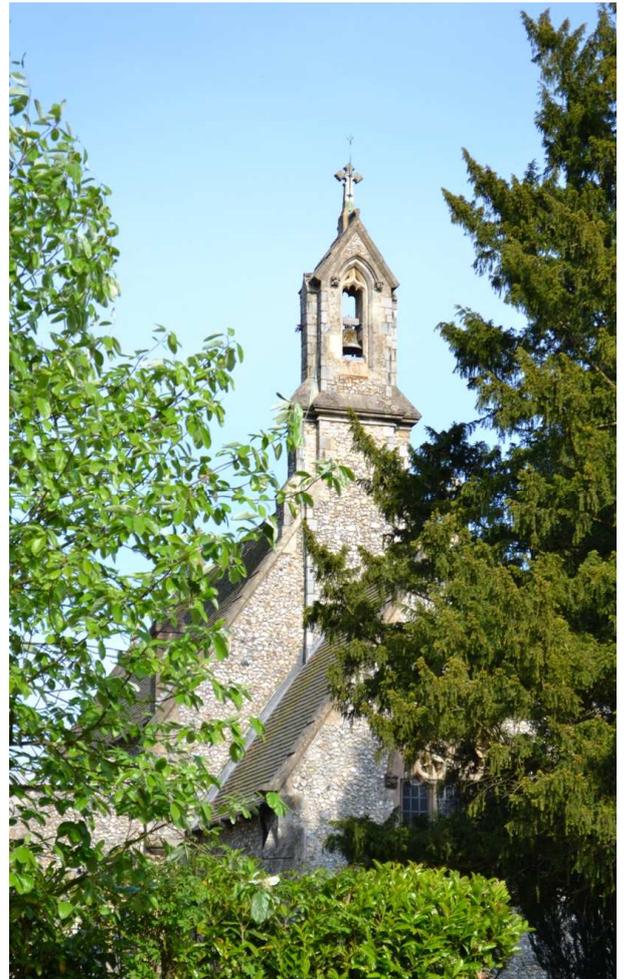
From an ecological perspective, Holy Trinity Churchyard, Prestwood, represents a rare survival of the original acid grass heath that was prevalent on the extensive old Chiltern commons that were almost entirely destroyed when enclosed in the middle of the 19th century. Plants survive here that are no longer known anywhere else in the region. In addition, the combination of no fertilisers, regular mowing and removal of cuttings, has created the ideal conditions for what is known as a "waxcap grassland", where a special suite of fungi that are largely very rare can flourish - mostly waxcaps, but also "clubs" and pinkgills.

Habitats

Waxcap grasslands

Waxcap grasslands are a county and national priority for conservation in their respective Biodiversity Action Plans, because of their scarcity resulting from the common application of chemical fertilisers to grassland in the 20th to 21st centuries. They are classified according to either the number of waxcaps, *Hygrocybe* species, recorded at each site, or a "CHEG" score which uses other associated fungal species as well as waxcaps (e.g. clubs, corals and pinkgills). In terms of numbers of waxcaps, a score of 22 or more is of Internationally Important Status (12 sites in England in English Nature Report 555: Evans, S. (2004) *Waxcap-grasslands - an assessment of English sites*. English Nature). A score of 17 or more is of Nationally Important Status (33 sites at the time of the English Nature report in 2003). Holy Trinity Churchyard, Prestwood, with 23 recorded species (including one variety), qualifies as Internationally Important.

One particular species, *Hygrocybe calyptriformis* Pink, or Ballerina, Waxcap is a Biodiversity Action Plan species in its own right for its special importance and rarity. This is one of the species appearing annually at Holy Trinity Churchyard, Prestwood. Elsewhere in Buckinghamshire it is only known from Holy Trinity Churchyard at Penn Street.



Holy Trinity Church from west, with large yew to right



Pink Waxcap with Drab Bonnet *Mycena aetites*

The main features of a waxcap grassland are: short grass, nutrient-poor soil, and rich in moss (with which the fungi have a symbiotic relationship). Acid soil (as here) also supports a wider range of waxcaps than does, say, chalk grassland. A waxcap grassland takes many centuries to develop and is therefore irreplaceable. It can be destroyed overnight by excessive disturbance, neglect or fertilisation. With very few such biologically rich sites in the world, it is important that those remaining be preserved. It was lucky that before the churchyard was created in 1849 this site was part of pasture adjacent to (the now defunct) Knives Farm and had never been ploughed - it is likely that it had been more or less the same from Anglo-Saxon times. Grazing would have kept the grass short and created the conditions for rare fungi to thrive. It is even more fortunate that Holy Trinity Church has a keen body of active volunteers that have managed the churchyard sensitively and appropriately. Only minor adjustments are needed to create the ideal regime for waxcap grassland - using a higher cut of 1-2 inches and avoidance of mowing from mid-September to early November to allow the fungi to "fruit" undamaged.

The site has been monitored for its fungi and other wildlife for 20 or so years. In 2016 a particularly intensive study was made of the fungi for 9 weeks from September to November (see below for results). Full records to date are appended to this account.

The areas of grass around the church itself on the east, south and west sides have been the most intensively mown and are the main waxcap areas. Unfortunately, the eastern section was recently damaged when builders working on the church in 2015 erected a large hut there without warning. It is likely, however, that the damaged section will recover in a few years; the remaining two-thirds of that area are still intact. (See plan of the site and photos of main sections appended below.)

Fungi are themselves a habitat for small creatures, such as the larvae of flies and beetles. Eleven species have so far been identified from fungi in the churchyard, although this is only the tip of the iceberg. They include two uncommon beetles, *Mycetophagus piceus* and *Smicrus filicornis*. The males of the brown helemomyzid fly *Suillia notata* are regularly to be found perched on the caps of toadstools like Meadow Waxcap waiting to intercept females, which lay their eggs in fungi (resulting in some of the maggots often found feeding inside wild toadstools).



Male *Suillia notata* fly on Meadow Waxcap

Grass-heath

This is a rare habitat in the Chilterns (although there good examples in the extreme north and south of Bucks, beyond the Chilterns). Plant species associated with grass-heath at Holy Trinity Churchyard, Prestwood, include Heath-grass *Danthonia decumbens* (only site in the region), native Heather *Calluna vulgaris* (last remaining site in the area), Heath Bedstraw *Galium saxatile* (few other local sites), Tormentil *Potentilla erecta* (few other local sites) and Heath Speedwell *Veronica officinalis*. Other grass-heath species that occur, and have limited populations locally, are Harebell *Campanula rotundifolia*, Pignut *Conopodium majus*, Mouse-ear Hawkweed *Pilosella officinarum* and Field Woodrush ("Good Friday Grass") *Luzula campestris*. The lichen *Cladonia rangiformis* (related to the "reindeer moss" of Lapland) is rife among the grass, and black leaf-like growths with white undersides among the moss are another lichen *Peltigera lactucifolia*. There are a number of mosses requiring wet or acid grassy conditions - *Amblystegium serpens*, *Calliergonella cuspidata*, *Campylopus introflexus*, *Dicranum scoparium*, *Polytrichum commune* and *Rhytidiadelphus squarrosus*.



Typical grass-heath with tormentil, heath bedstraw & heath speedwell



Heather flowering prostrate in turf at Holy Trinity churchyard



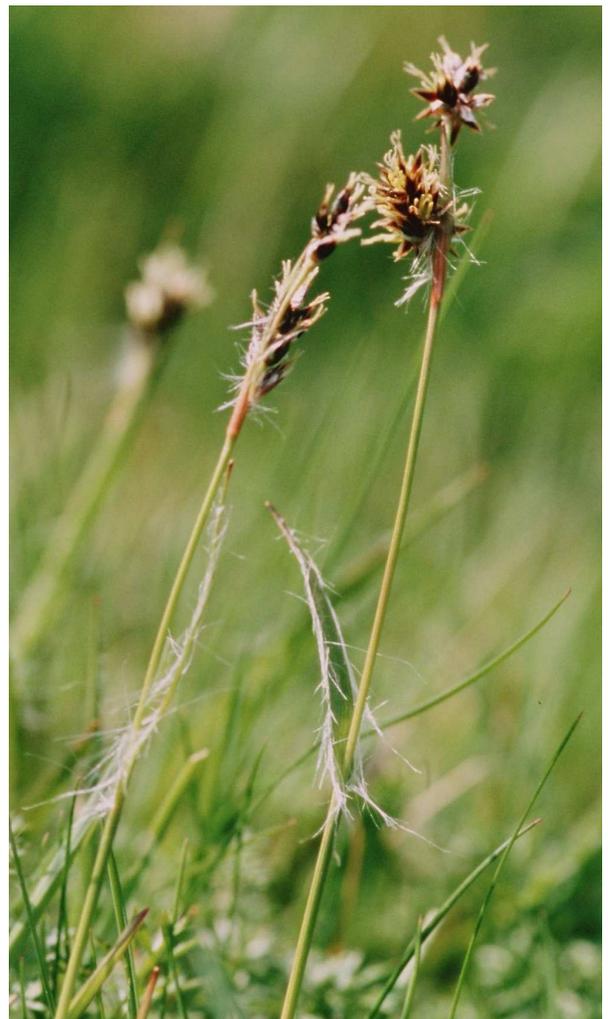
Harebell



Mouse-ear hawkweed



Pignut



Good Friday Grass



Close-up of turf with lichen *Cladonia rangiformis* and Common Haircap Moss *Polytrichum commune*

The grass-heath plants occur in the same areas as the best waxcap grassland. The fungus and moss litter in these parts support uncommon beetles such as *Philonthus decorus* and *Stenus brunnipes*, the small Moss Chrysalis Snail *Pupilla muscorum* and the heathland black ant *Formica lemni* which has hardly any other sites in the south-east. The galls of the gall-wasp *Xestophanes brevitarsis* have been found on the tormentil, the only record for Buckinghamshire; this species is very rare in the south of Britain, although more common in the north and west. Locally rare fungi discovered here, apart from the waxcaps and associated fungi, are the Dotted Fanvault *Camarophyllopsis atropuncta* and the Scarlet Caterpillar-club *Cordyceps militaris* (small bright orange-red "clubs" easily picked out even in grass; they grow from underground larvae or pupae of insects). Germander speedwell runners can be found with small black nodules, which were once considered fungi, but are now considered bacteria, *Podosphaerula radicalis*.



Gall of *Xestophanes brevitarsis* on tormentil



Dotted Fanvault



Scarlet Caterpillar-club on noctuid moth pupa

There is a large population of Cuckooflower *Cardamine pratensis* on the north side of the church (see picture below of this part of the churchyard) and Common Spotted Orchid *Dactylorhiza fuchsii* was seen here once in 2014. In the same area Star-of-Bethlehem *Ornithogalum umbellatum* was seen in 2004, although it may have been introduced rather than being the native variety (which needs checking if it re-appears).

Grasslands on the south and east sides of the church have been particularly kept short and contain the main heathland vegetation. The grass on the west side is generally longer and provides a useful variation in microhabitat where more common "meadow" species such as Common Knapweed *Centaurea nigra* occur. The north side had for some years been more neglected and had been invaded by bramble. This has now been cleared and it is noticeable that waxcaps have immediately appeared in that area. To the west of those older parts of the churchyard adjacent to the church is a further graveyard on a west-facing slope, which again had been allowed to get overgrown but has now been mainly cleared. This has fewer species of interest, but some waxcaps and other significant fungi grow on the higher section closer to the old churchyard and this area has the potential to develop further interest. The ground is noticeably damper and less well-drained on the highest part of the site around the church, which is probably why this is where the grass-heath survives, whereas the western slope is drier and has a more ordinary vegetation.

Other important habitats



Wall-rue, church porch 2016

(i) Church walls

Bare rock-features and walls are a locally rare habitat, especially important for ferns. Churches provide most examples of such habitat (SS Peter and Paul, Great Missenden, for instance, is the only Bucks site for Brittle Bladder-fern *Cystopteris fragilis*). Holy Trinity church supports small populations of Black spleenwort *Asplenium adiantum-nigrum*, Wall-rue *Asplenium ruta-muraria*, Hart's-tongue *Asplenium scolopendrium*, Wall Lettuce *Mycelis muralis*, Polypody *Polypodium vulgare* (but only seen once in 2001) and Mind-your-own-business *Soleirolia soleirolii* (at the base of the walls on the east side). The west- and north-facing walls and the shady entrance porch are particularly important for the fern species. The moss Hair-pointed Grimmiid *Grimmia trichophylla* also grows on the walls and tombstones and is rare in this part of the country. The tombstones also provide sites for a range of lichens, which have not so far been documented.

(ii) Lower graveyard

This section of the churchyard is of less importance for the plant and fungus species. Although scrub invasion (mainly bramble) needs to be rigorously controlled, some areas of taller growth allow the survival of Dark Mullein *Verbascum nigrum* (important as the food-plant of the endangered Striped Lychnis Moth and the uncommon weevil *Cionus hortulanus*) and a white variety of Musk Mallow *Malva moschata*. With the more luxurious plant growth, this area is important for bees, hoverflies, butterflies (including marbled white) and other pollinating insects. The Common Toad *Bufo bufo* has been seen here too, and shady wet areas have the slug *Arion fasciatus*, and the tiny woodlouse *Trichoniscus pusillus*. Wrens and robins build their nests here and badgers forage.



Striped lychnis caterpillar on dark mullein



Unpruned yew on west side of church

(iii) Trees and shrubs

These are mainly confined to the boundaries and it is important for the other habitats that the churchyard remains open to plenty of light. They do, however, support some important fungi in their own right (see list of fungi in Appendix) and play a role in enhancing biodiversity. Notable specimens include: (a) the unpruned yew *Taxus baccata* (nearly 3m girth) to the west of the church, planted in 1850, associated with the yew artichoke gall caused by the fly *Taxomyia taxi*, and the fungi *Cystoderma carcharias*, *Mycena adscendens* and Sulphur Polypore *Laetiporus sulphureus*;

(b) a Horse Chestnut *Aesculus hippocastaneum* (2.4m girth) by the path on the north side, close to the school-house;

(c) a Holly *Ilex aquifolium* (1.6m girth) near the north-east corner of the lower churchyard (beside a gap leading to the path);

(d) two Beech *Fagus sylvatica* (2.5 & 2.3m girths) at the far north-west corner of the lower churchyard. One of these has unfortunately succumbed to one of the less benign fungi, Shaggy Bracket *Inonotus hispidus*, and has recently begun to shed large boughs. The remaining boughs are to be removed for safety reasons, but the standing trunk will provide an excellent dead-wood micro-habitat for many years. The taller trees provide roosting places for pipistrelle bats.

Areas with shrubs and longer grass provide further variety in habitats and host species that need shelter and shade. Many uncommon fungi occur in association with tree roots. While the mown grassland areas include a rare and specialised ecological community, the shadier long-grass areas actually support greater biodiversity and are equally important to conserve. Hedges (particularly the laurel hedges) support a good colony of Box Bug *Gonocerus acuteangulatus*, a recent immigrant to this area from the original native site at Box Hill.



Box bug on laurel in churchyard



Beech at NW corner of lower churchyard in 2015



Same tree in 2016 after bough loss

(iv) Compost heaps

These are important as a habitat for Slow-worms *Anguis fragilis*. The current bins are well-managed and encourage the essential removal of grass-cuttings.



Slow-worm

(v) Graves

Graves themselves often involve the introduction of foreign materials (grit, chippings, the gravestones themselves) and deliberate planting of exotic species. These increase biodiversity in a simple sense, but not being a part of a natural ecosystem they do not really advance the environmental value of the site and are not a concern of conservationists. Nevertheless, sometimes interesting introductions can occur, as when the rare Spring Cinquefoil *Potentilla tabernaemontani* was introduced with limestone chippings on a grave in the eastern section. It survived for many years until the person maintaining the grave replaced the chippings with shale. Since then a few plants have lived on in the turf at the edge of the grave where they had spread, the leaves difficult to distinguish from creeping cinquefoil, but it seems unlikely that they have a long-term future. After building work in 2016 it was found that new plants had been imported in ground disturbed on the north side of the church, most notably Danish Scurvy-grass *Cochlearia danica*. Again, its survival is dubious, but not really of conservation interest.



Spring cinquefoil on grave on east side of churchyard April 2006

Surroundings of the Churchyard

To the east lies the car park and then Wycombe Road, and to the south housing, including the vicarage. To the west, however, lies Prestwood Park, semi-improved grassland with occasional cattle grazing. At the time of the building of the church around 1850 clumps of trees (limes, horse chestnuts, beeches, turkey oaks) were planted here. With these, towards the north-east corner, was planted a Lucombe Oak *Quercus x hispanica*, a hybrid between cork and turkey oaks, which is one of few surviving examples in Bucks. To the north lies Friar's Field, like Prestwood Park now a part of the Wren Davis farm, and similarly cattle grazed. Friar's Field, along with the orchard at its north end, contains the main colony of Corky-fruited Water Dropwort *Oenanthe pimpinelloides*, at its only site in Bucks, monitored by the Bucks Rare Plants Group and Prestwood Nature. This plant has recently spread into Prestwood Park and grass verges of Wycombe Road, and is a potential coloniser of the churchyard.

Conservation

In 2004 the management of the churchyard earned the church an award from BBOWT, acknowledging that the management was favourable to wildlife.

Little change in current management is required, but a greater diversity of micro-habitats could be created by fine-tuning the cutting and scrub clearance, although it is important that the main waxcap areas remain as short grass. As a well-used churchyard, conservation at the site must be able to accommodate weddings and funerals etc, and maintain access to graves, particularly the more recent ones, and occasionally older ones, some of which are currently overgrown with scrub. These demands set some limits to the creation of different micro-habitats.

Different people will have different views about how they think the church and its environs should look. Some will expect a degree of "tidiness" and control that may be incompatible with wildlife. It is therefore important that the importance and joy of natural species be publicised in relation to the churchyard. This could take the shape of an information board describing the area as a "nature reserve", outlining the qualities and benefits of this and the necessity for certain kinds of maintenance. Public open-days might be held in the autumn to introduce people to the wonders of the fungi on display then. During the 2016 waxcap survey a weekly e-newsletter "Myconews" was sent to the main members of the church council and others concerned with management, with the latest findings and photos of the main fungi. This was very successful in raising awareness of, interest in, appreciation of, and even enthusiasm for, what were previously overlooked gems of natural history.

The site is currently being considered by the County Council as a potential Local Wildlife Site, although its size (approximately one acre) is below the minimum usually applied; it is hoped an exception will be made, given that almost all waxcap grasslands are small in area. There should also be recognition at national level of the importance of this site, which would facilitate applications for funding for an information board and other maintenance assistance.

The local conservation group Prestwood Nature has assisted the church by participating in one or two "scrub-bashing" parties a year and by regular monitoring of the site. Monitoring has concentrated on the plants and fungi. More intensive surveys of invertebrates and lichens would be likely to enlarge the number of important species associated with the churchyard. The Bucks Fungus Group visited on one occasion and recorded many of the species. A visit, or better several visits, by a specialist, in especially the "pinkgills" or *Galerina* species, would be very welcome. Plant surveys have been carried out in various years by Roy Maycock (BSBI county recorder), Fiona Everingham (LWS officer) and Tony Marshall. Mosses were surveyed on one occasion by Alan Showler. A bird survey has been started by John Obee of Prestwood Nature, which should be completed by autumn 2017.



Corky-fruited water-dropwort & Common Knapweed, Prestwood Park

Results of the 2016 mycological survey

This was carried out by Tony Marshall, with the assistance of Valerie Marshall, by means of nine weekly visits from 14 September to 10 November, at each of which the whole of the upper churchyard was systematically searched and the lower churchyard subjected to an extensive but less intensive search. This took 2-3 hours in each week (including opportunities for educating a number of passers-by). Identification work on collected specimens took a further 3 hours each week, with recording and compilation of a weekly report to the Church absorbing a further 2 hours. Separate records were kept for the eastern, southern, western and northern sides of the church and for the lower churchyard. This enabled dates and places of appearance of different species to be plotted. This was only possible with the cooperation of the churchyard maintenance volunteers, who discontinued mowing of most areas during the period of the research.

Fungi associated with grass-heath or waxcap-grasslands (see list in appendix) were concentrated on the south, west and east sides of the church (34, 31 and 28 species respectively). The east side was visibly affected by damage done by the builder's hut, and a slightly higher score would normally be expected, so that these three areas are all equally important to the preservation of the waxcap-grassland. If one includes all other fungi, which are mostly associated with the roots of surrounding shrubs and trees, the south and west sides had the highest totals (51 and 53 respectively). The east side was lower with 40, because there are fewer trees around that area. The lower churchyard also had a moderately high score of 44, which is probably an under-estimate because searches were most concentrated adjacent to the church. Only 15 of these, however, were waxcap-grassland species (WCS). The north side of the church was low on all counts, although it still had 12 WCS.

In looking at seasonal variation I supplemented this year's research with records from earlier years. Timing of appearance for each fungus is a matter of the weather at the time and over preceding weeks, and can be highly variable from year to year, but the peak time normally is from the end of September to about 10 November. The peak for WCS was around 27 October and for the tree-associated species a week earlier. There are no records for the WCS before the middle of September, 3 have been seen around 14 September, 15 around 22 September, 25-29 for the weeks from the end of September to around 13 October, and 35-41 from around 20 October to 3 November. After that the numbers drop off markedly, with 19 recorded around 10 November, 8 in later November, and 13 in December. Just one has been seen in January.

Local records cover sites up to 5km from the church, so that the fungi in the churchyard can be compared with other local sites. On this basis, the churchyard is the only site in the area for 10 of the WCS (18%), including 6 of the waxcaps (*Hygrocybe*) themselves, 4 of the general grassland species and 6 of the tree-associated species. It is also the only known site for the Scarlet Caterpillar-club, which cannot be classified with the above. There are a further 10 WCS, 4 general grassland species and 5 tree-associated species for which there is only one other site in the local region.

Altogether across all local sites 69 waxcap-grassland species have been recorded, of which 29 are *Hygrocybe* (waxcap). (The 29 *Hygrocybe* include 2 varieties of *H. pratensis* and 3 varieties of *H. virginea*, so that 26 different species are involved.) **Holy Trinity churchyard** contains the highest recorded numbers of these of any single site (54 waxcap-grassland species and 23 *Hygrocybe*). The next best site is **Hampden Common** (the mown surrounds of the cricket pitch) with 40 WCS and 17 *Hygrocybe*. This would also qualify as a site of national importance. The third best site is **Great Kingshill Common**, again the mown surrounds of a cricket pitch, in this case more closely mown than Hampden because of the smaller size of the site. This has 24 recorded WCS of which 13 are *Hygrocybe*. According to Natural England criteria it would be of regional importance in terms of its waxcaps (minimum 9 species). A few other sites might qualify as locally important (4-8 *Hygrocybe*). These are:

1. **Prestwood Picnic Site** - 9 WCS, 7 *Hygrocybe*. This is a chalk grassland nature reserve sheep-grazed each autumn for about three weeks. Chalk grasslands, however, cannot compete with acid grasslands for the range of WCS.

2. **Great Hampden Churchyard** - 13 WCS, 5 *Hygrocybe*. This site is mown but the cuttings not removed. With appropriate management it might well achieve at least regional importance. Mowing is done commercially because of a lack of local volunteers, unlike Holy Trinity.

3. Roadsides and green areas of the **Prestwood housing estate** - 9 WCS, 5 *Hygrocybe*. The housing estate was built on remnants of the once extensive Prestwood Common and the land has never been fertilised. These green areas are mown and the cuttings not removed. While most of the grassland sections are small, there is a more extensive area at Greenside, which is partly planted to shrubs, and could achieve a significant score if management were appropriate.

4. **Prestwood Common** - 7 WCS, 5 *Hygrocybe*. This consists mostly of football pitches and is mown with cuttings not removed. Fungi only survive along the margins.

Finally there is one site, which has only had one visit, that had 11 WCS, but only 3 *Hygrocybe*. This is the lawn of **No.1 Sixty Acres Road** (which again was once part of Prestwood Common). This is mown and the cuttings are removed.

There are 18 other sites that have some WCS (up to 7), 15 of them with at least one *Hygrocybe* but none more than 3.

(It should be taken into account that some of these sites have received very few visits, often just one, at the appropriate time of year. All figures will be underestimates, even for the more frequently recorded sites. Holy Trinity churchyard is the most intensively studied site, and all the other six top sites have had more than one visit to record fungi. Nevertheless this year's survey added several new species, including waxcaps, to the previous list for the churchyard.)

Waxcap Grassland Species of Holy Trinity Churchyard in detail

Hygrocybe Waxcaps

The six species only seen at this site within the local area are as follows. All are nationally uncommon.

H. calyptriformis Pink (Ballerina) Waxcap

Until this year I only found this species on the south side of the church, although it is one of the species that appears regularly every year. In 2016, however, it also appeared on the east and west sides. It may be seen from the end of September to about 10 November, but one year was present in December. In 2016 it did not appear until 3 November. It is a national Biodiversity Action Plan species. It is one of our most distinct waxcaps, even at a distance, with its unique pink colouring and steeply conical cap. As it ages the edge of the cap turns up to look like a tutu.

H. citrinovirens Citrine Waxcap This has not been seen on the south side so far, but appeared on all other three sides of the church in 2016. It has so far generally appeared in October. It is bright yellow with lime-green tints, tending to turn whitish, and has a very long stout stem relative to the cap.



Citrine Waxcap





Toasted Waxcap

***H. colemanniana* Toasted Waxcap** This has only been seen twice in 13 years, so we were lucky to see it in 2016, when it appeared on the south side on 13 October. In 2003 it appeared at the end of September. It is may be deep red-brown or brown grey, but also occurs in a pale form that could be confused with the much commoner Snowy Waxcap (below), but it has a drier fibrous stem with a white coating.

***H. intermedia* Fibrous Waxcap** This is another species only seen twice, in 2015 and 2016. It was seen on the north and west sides in 2016 from 6 October to the end of the month. In 2015 it was seen slightly earlier. There was a large colony in 2016, very showy with their orange and yellow caps and stems, the large conical cap looking "scurfy" from raised scales over the central dome.



Fibrous Waxcap

***H. punicea* Crimson Waxcap** In 2016 this was seen on the north and east sides in a single limited patch stretching across the path to the church from the school house (it only occurs in two areas as a result of my using the path as a boundary between the N and E sides). It has appeared fairly regularly over the years late in the season from 20 October to mid-November, and once in December.

***H. quieta* Oily Waxcap** In 2016 this was seen on the east and west sides and in the upper part of the lower churchyard. It has been seen twice before, once at the end of September, but more generally from 20 October onwards. It is grey-yellow or orange with orange gills.



Oily Waxcap



Crimson Waxcap

The following six species are similarly nationally uncommon.

***H. fornicata* Earthy Waxcap** This has been seen at just one other local site - Hampden Common, and was recorded at Holy Trinity for the first time this year, occurring for about a week from 20 October on the east and south sides and the top of the lower churchyard. Less conspicuous than most waxcaps, it is grey-brown with a clear white stem. The cap becomes wrinkled and cracked, the rim splitting.



Earthy Waxcap

***H. glutinipes* Glutinous Waxcap** This species has been seen at four other sites, two on more acid clays like Holy Trinity (Kingshill Common and Great Hampden Churchyard), and two on the chalk (Prestwood Picnic Site and Little Stocking Meadow). It only occurred on the west side in 2016. Its season is spread from end of September into the beginning of November. It is similar to the commoner Golden Waxcap (below), but has less orange and a greenish-yellow stem. It is markedly sticky on cap and stem.



Glutinous Waxcap

***H. iririgata* Slimy Waxcap** Seen at just one other site, Hampden Common, this species is widespread at Holy Trinity, scattered over all but the north side of the church. It is also seen over many weeks from the end of September to the middle of November. It is almost impossible to pick because it is so slimy and slippery. It is one of our less colourful waxcaps, being dark brown.



Slimy Waxcap

***H. mucronella* Bitter Waxcap** The only other place where I have seen this locally is not far from the church in the verge along Wycombe Road, so it appears to be a very localised species. It was recorded for the first time in 2016 on the east and west sides, in each case in a single distinct patch, appearing on the west side first on 20 October and then seen until the middle of November. It is a small species with red cap, usually with a yellow rim, and orange gills, similar to the commoner Scarlet Waxcap (below), but with a bitter taste.



Bitter Waxcap



Nitrous Waxcap

***H. nitrata* Nitrous Waxcap** This has been seen at three other sites - Hampden and Kingshill Commons, and in a private chalk grassland near the Prestwood Picnic Site. It is common at Holy Trinity and occurs most years, in all sections, including the lower churchyard, and at any time from early October to late November. The cap is grey, dry, becoming scaly. It has a strong nitrous smell, like hospitals.



Persistent Waxcap

***H. persistens* Persistent Waxcap** This is not uncommon locally, having been found at Hampden, Kingshill and Prestwood Commons, Prestwood Picnic Site (on chalk) and Great Missenden cemetery, both on clay and chalk, but was only seen on the west side at Holy Trinity in 2016. It has appeared in a number of years from late September to mid-November. It is bright yellow to orange, conical, rather like a young blackening waxcap, but not turning black. The cap soon splits into lobes.

The following species is regionally uncommon:

***H. laeta* Heath Waxcap** Although not uncommon nationally, like all heathland species it is rare in our region and has only been recorded at one other site, Hampden Common. It was noticed at Holy Trinity for the first time in 2016 and did not appear until 3 November. It was only seen on the east side.

The remaining nine species recorded at Holy Trinity are:

***H. ceracea* Butter Waxcap:** 6 other sites, seen at Holy Trinity in 2009 and 2015-2016. It has the colour and greasy feel of butter, the cap margin often turning up. The centre of the cap is usually depressed into a sort of "eye". It appears from early to late. It was seen on the west side in 2016.



Butter Waxcap



Golden waxcap

***H. coccinea* Scarlet Waxcap:** 3 other sites, seen regularly at Holy Trinity, east, south and west sides, from 20 October to mid-November. Small, blood-red greasy cap with a similarly-coloured or yellow-orange stem. The surface of the cap is usually rather granular or rough.



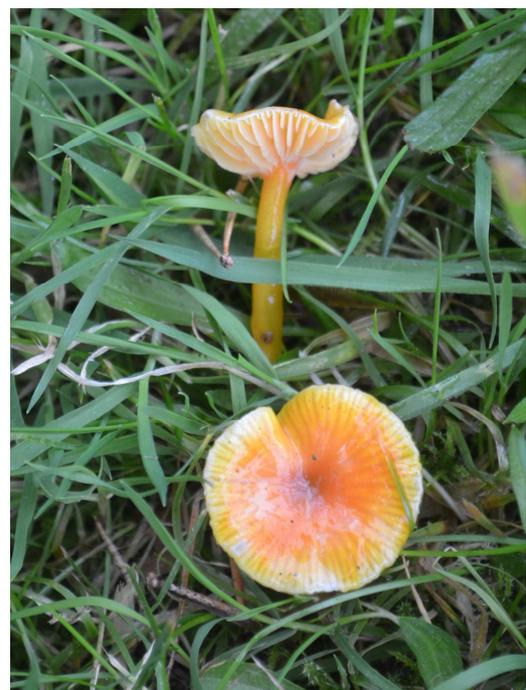
Scarlet Waxcap

***H. conica* Blackening Waxcap:** 9 other sites, surprisingly seen for the first time at Holy Trinity in 2016. Can appear earlier than other species, often by mid-September, but still cropping up until early November, not usually in distinct patches, but scattered. Although initially a vivid orange the fibrous conical cap soon starts to go completely black.



Blackening Waxcap

***H. insipida* Spangle Waxcap:** 5 other sites, scattered over all sections of Holy Trinity, including lower churchyard. Small bright yellow to orange species with a greasy cap and, initially at least, a sticky stem. It is easily confused in some colour forms with Butter Waxcap.



Spangle Waxcap



Meadow Waxcap

***H. psittacina* Parrot Waxcap:** 9 other sites, all parts of Holy Trinity except the north, and even occurring well down in the lower churchyard. It is generally the first waxcap to appear in any grassland as it develops the infertile mossy character of a waxcap grassland. It also has a wide time frame, appearing anywhere from September to December. It varies from bright yellow to vivid green or even purplish, and fades to pale yellow: the deep green stems are unique among our waxcaps. It is very sticky to touch.

***H. pratensis* Meadow Waxcap:** 4 other sites, all sections of Holy Trinity, except the north side, but including the lower churchyard. Wide range of dates. Our only edible species and one of the largest, it is not greasy or sticky like most waxcaps. The cap is a dull orange or apricot, the stem whitish.



Parrot Waxcap



Snowy waxcap

***H. russocoriacea* Cedarwood Waxcap:** 3 other sites, but only first recognised at Holy Trinity in 2016, on all sides except the north. Possibly overlooked in the past as snowy waxcap, if not checked for its distinct and very pleasant smell.

***H. virginea* var. *virginea* Snowy Waxcap:** 17 other sites, all sections of Holy Trinity, including the lower churchyard. One of the first species to occur as waxcap grassland develops. It has a long season from September to December. The rarer variety *var. ochraceopallida* (Ochraceous snowy waxcap) has been recorded at Holy Trinity, Hampden Common and Speen Baptist churchyard in the past, but not identified at Holy Trinity in 2016. In its typical form the cap varies from shiny white like marble to buff. It is one of the most constant species to appear here.

Species other than waxcaps

The species only seen at this site within the local area are as follows. All are nationally uncommon.

Entoloma longistriatum* var. *sarcitulum This pinkgill species was only recorded for the first time in our area at Holy Trinity this year, on 14 September. It was on the east side and only appeared for two weeks. It may have been unrecorded in the past because of the difficulty in identifying *Entoloma* species. It has only 231 records in the national database, mostly in Scotland. This is the only known site for it in Buckinghamshire or the Chilterns.



Entoloma longistriatum var. *sarcitulum*

E. mougeotii Slate-grey pinkgill First recorded locally at Holy Trinity on 17 October 2013, but not recorded since.

E. sericellum Cream pinkgill First recorded locally this year at Holy Trinity on 30 September, visible for three weeks from the end of September.

Frommea obtusa This is a rust species growing inside the tissues of tormentil and causing outbreaks of orange spores on the leaves.

Galerina tibiicystis This small toadstool was first recorded locally at Holy Trinity this year on 3 November, on the west side. Its awful rancid smell is a clue to separating it from similar undistinguished fungi. It is usually found with *Sphagnum* mosses, but here must be associated with other mosses.

Ramariopsis subtilis Slim coral First recorded locally at Holy Trinity this year on 3 November, on the south side.



Slim coral

Camarophyllopsis atropuncta Dotted fanvault First recorded locally at Holy Trinity this year on 3 November, on the west side. It has gills that curve down on to the stem like a fan-vault, and the tapering stem itself is dotted by black warts. The cap is a lumpy grey-brown.

The following species are also nationally uncommon:

***Arrhenia acerosa* Moss oysterling:** 1 other site, Kingshill Common. On east side of Holy Trinity 30 September 2016, the first time it had been noted here. It is small, close to the turf and has a stem to one side instead of in the centre of the cap, like a tiny oyster mushroom.



Moss oysterling cap



Moss oysterling, underside of cap

***Clavaria argillacea* Moor club:** 1 other site, Hampden Common. 3 December 2002 at Holy Trinity; not seen 2016.

***Clavulinopsis laeticolor* Handsome club:** 1 other site, Hampden Common. 12 October 2005 at Holy Trinity; not seen 2016.

***Dermoloma cuneifolium* Crazy cap:** 1 other site, Hampden Common. Lower churchyard Holy Trinity 3 November 2016.



Crazy cap



Indigo pinkgill

***Entoloma chalybaeum* var. *lazulinum* Indigo pinkgill:** 3 other sites - Hampden and Kingshill Commons and private chalk grassland site near Prestwood Picnic Site. Common at Holy Trinity on all sides of the church except the north, at any time from mid-September to early November. The dark blue-black cap and blue stem, contrasting with the pink gills, make this a conspicuous species.

***E. ortonii* Mealy pinkgill:** 4 other sites. On all sides of Holy Trinity church except north in 2016, seen from 22 September to 27 October, seen in the past in December.

***E. porphyrophaeum* Lilac pinkgill:** 5 other sites: seen at Holy Trinity 27 October 2014; not seen 2016.

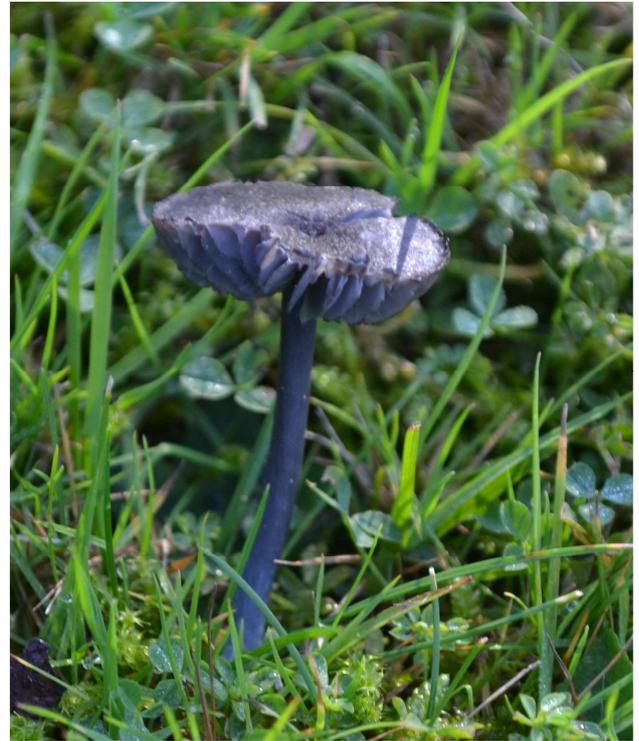
***E. lucidum* Glossy pinkgill:** 2 other sites: 3 November at Holy Trinity lower churchyard (this species is not restricted to waxcap grasslands).

***E. serrulatum* Blue-edge pinkgill:** 1 other site: not seen at Holy Trinity 2016, but in 2013 and 2015, 20-27 October (another species not restricted to waxcap grasslands). Has a blue stem like indigo pinkgill but the gills are blue-grey with a black edge.

***Galerina mniophila* Moss bell:** 6 other sites: seen at south and east sides at Holy Trinity, and lower churchyard, in 2016, from 20 October to 3 November; has also been seen there in mid-November to December.

***Mycena megaspora* Rooting bonnet:** 1 other site, close to Holy Trinity in Wycombe Road verge; at Holy Trinity 22 September 2016 on south side, growing with heather (its usual associate).

***Conocybe pubescens* Downy conecap:** 3 other sites; 11 November 2016 at Holy Trinity east and south sides.



Blue-edge pinkgill

Summary

Holy Trinity Churchyard is a locally rare example of pristine acid grass-heath with perfect conditions for a waxcap grassland. The number of waxcap species recorded here classes it with the best known sites in the world. It is essential that the site should be conserved and continue to be managed appropriately.

It is recommended that the bulk of the east, south and west sides of the church be maintained as waxcap grassland by mowing (using the highest setting) on a 3-weekly basis. The same management might be applied to the upper part of the lower churchyard, which shows potential for developing a similar mycology, although the vegetation is not currently of the grass-heath kind. Encroaching young trees on the southern boundary of the south section should be removed, but a narrow strip of scrub and longer grass should be maintained there. Other longer grass areas (mown only once or twice a year) could be instituted on the north side and part of the northernmost part of the west side, as well as at the margins of the lower churchyard, grading into a narrow belt of scrub at the boundaries (which would need periodical clearance). The exact siting of these less managed areas would need to be in consultation with the church management team. While the laurel hedges would not normally be considered an environmental asset, in this case they do form a habitat for the box bug, and should be conserved with rigorous clipping and with shoots invading into neighbouring grassland removed whenever they occur.



South side, looking west, with heather flowering on one grave and mown heather showing as darker patches to right



West side, looking north, with clipped and unclipped yews; clump of red bistort flowering beside church



North side, looking west, in 2016 after scrub clearance



North side, looking west, in 2007 when longer grass allowed flowering of cuckooflower (lady's smock) and bluebells, but before scrub encroachment, the ideal to which this section should be returned



Lower churchyard with some tall plants (rosebay) in background and ivy-covered wall to left

Species lists (*locally uncommon)

Species of short unfertilised mossy turf on wet acid soils

Acari	Damaeus onustus Moss mite	Fungi	Entoloma ortonii Mealy pinkgill*
Bryophyta	Amblystegium serpens Creeping feather-moss	Fungi	Entoloma porphyrophaeum Lilac pinkgill*
Bryophyta	Calliergonella cuspidata Pointed spear-moss	Fungi	Frommea obtusa
Bryophyta	Campylopus introflexus Heath star-moss	Fungi	Galerina mniophila *
Bryophyta	Dicranum scoparium Broom fork-moss	Fungi	Galerina pumila Dwarf bell
Bryophyta	Polytrichum commune Common haircap	Fungi	Galerina tibiicystis *
Bryophyta	Rhytidiadelphus squarrosus Springy turf-moss	Fungi	Hygrocybe calyptriformis Pink waxcap*
Coleoptera	Philonthus decorus *	Fungi	Hygrocybe ceracea Butter waxcap
Coleoptera	Poecilus cupreus	Fungi	Hygrocybe chlorophana var. aurantiaca Golden waxcap
Coleoptera	Psyllobora 22-punctata 22-spot ladybird	Fungi	Hygrocybe citrinovirens Citrine waxcap*
Coleoptera	Stenus brunripes *	Fungi	Hygrocybe coccinea Scarlet waxcap
Coleoptera	Tachyporus chrysomelinus	Fungi	Hygrocybe colemanniana Toasted waxcap*
Coleoptera	Tachyporus hypnorum	Fungi	Hygrocybe conica Blackening waxcap
Flora	Agrostis capillaris Common bent	Fungi	Hygrocybe fornicata Earthy waxcap*
Flora	Ajuga reptans Bugle	Fungi	Hygrocybe glutinipes Glutinous waxcap*
Flora	Briza media Quaking-grass	Fungi	Hygrocybe insipida Spangle waxcap
Flora	Calluna vulgaris Heather*	Fungi	Hygrocybe intermedia Fibrous waxcap*
Flora	Campanula rotundifolia Harebell*	Fungi	Hygrocybe irrigata Slimy waxcap*
Flora	Cardamine pratensis Cuckooflower	Fungi	Hygrocybe laeta Heath waxcap
Flora	Carex hirta Hairy sedge	Fungi	Hygrocybe mucronella Bitter waxcap*
Flora	Conopodium majus Pignut*	Fungi	Hygrocybe nitrata Nitrous waxcap*
Flora	Crepis capillaris Smooth hawksbeard	Fungi	Hygrocybe persistens var persistens Persistent waxcap*
Flora	Dactylorhiza fuchsii Common spotted orchid	Fungi	Hygrocybe pratensis var. pratensis Meadow waxcap
Flora	Danthonia decumbens Heath grass*	Fungi	Hygrocybe psittacina Parrot waxcap
Flora	Festuca ovina agg. Sheep's fescue	Fungi	Hygrocybe punicea Crimson waxcap*
Flora	Galium saxatile Heath bedstraw*	Fungi	Hygrocybe quieta Oily waxcap*
Flora	Lotus pedunculatus Greater bird's-foot trefoil	Fungi	Hygrocybe russocoriacea Cedarwood waxcap
Flora	Luzula campestris Field wood-rush	Fungi	Hygrocybe virginea var. ochraceopallida *
Flora	Medicago lupulina Black medick	Fungi	Hygrocybe virginea var. virginea Snowy waxcap
Flora	Pilosella officinarum Mouse-ear hawkweed	Fungi	Hygrophoropsis aurantiaca False chanterelle
Flora	Potentilla erecta Tormentil*	Fungi	Lactarius turpis Ugly milkcap
Flora	Ranunculus acris Meadow buttercup	Fungi	Leccinum scabrum Brown birch bolete
Flora	Rumex conglomeratus Clustered dock	Fungi	Lycoperdon nigrescens Dusky puffball
Flora	Soleirolia soleirolii Mind-your-own-business*	Fungi	Mycena aetites Drab bonnet
Flora	Veronica filiformis Slender speedwell	Fungi	Mycena epipterygia var. viscosa Sticky yellowleg bonnet
Flora	Veronica officinalis Heath speedwell*	Fungi	Mycena luteoalba Ivory bonnet
Fungi	Arrhenia acerosa Moss oysterling*	Fungi	Mycena megaspora Rooting bonnet*
Fungi	Clavaria argillacea Moor club*	Fungi	Mycena olivaceomarginata Brown-edge bonnet
Fungi	Clavaria fragilis White spindles	Fungi	Ramariopsis subtilis Slim coral*
Fungi	Clavaria fumosa Smoky spindles	Fungi	Rickenella fibula Orange mosscap
Fungi	Clavulina coraloides Crested coral	Fungi	Rickenella swartzii Collared mosscap
Fungi	Clavulinopsis fusiformis Golden spindles	Hepaticae	Lophocolea bidentata
Fungi	Clavulinopsis helvola Yellow club	Hymenoptera	Formica lemani*
Fungi	Clavulinopsis laeticolor Handsome club*	Hymenoptera	Xestophanes brevitarsis *
Fungi	Clavulinopsis luteoalba Apricot club	Lichens	Cladonia rangiformis
Fungi	Clitocybe rivulosa Fool's funnel	Lichens	Peltigera lactucifolia
Fungi	Cystoderma amianthinum Earthy powdercap	Mollusca	Arion ater Large black slug
Fungi	Dermoloma cuneifolium Crazy cap*	Mollusca	Cochlicopa lubrica Slippery moss snail
Fungi	Entoloma chalybaeum var. lazulinum Indigo pinkgill*	Mollusca	Pupilla muscorum Moss chrysalis snail*
Fungi	Entoloma longistriatum var. sarcitulum *		

Other Grassland Species

Coleoptera	Subcoccinella 24-punctata	24-spot ladybird	Flora	Senecio jacobaea	Common ragwort
Flora	Achillea millefolium	Yarrow	Flora	Trifolium pratense	Red clover
Flora	Agrostis stolonifera	Creeping bent	Flora	Trifolium repens	White clover
Flora	Anthoxanthum odoratum	Sweet vernal-grass	Flora	Veronica chamaedrys	Germander speedwell
Flora	Arrhenatherum elatius	False oat-grass	Flora	Vicia sativa	Common vetch
Flora	Bellis perennis	Daisy	Fungi	Agaricus campestris	Field mushroom*
Flora	Carex divulsa divulsa	Grey sedge*	Fungi	Agaricus xanthodermus	Yellow stainer
Flora	Centaurea nigra	Common knapweed	Fungi	Agrocybe pediades	Common fieldcap
Flora	Cirsium arvense	Creeping thistle	Fungi	Calocybe carnea	Pink domecap
Flora	Cirsium vulgare	Spear thistle	Fungi	Camarophyllopsis atropuncta	Dotted fanvault*
Flora	Dactylis glomerata	Cock's-foot	Fungi	Clavulinopsis corniculata	Meadow coral
Flora	Deschampsia cespitosa	Tufted hair-grass	Fungi	Conocybe pubescens	Downy conecap*
Flora	Elytrigia repens	Common couch	Fungi	Conocybe tenera	Brown conecap
Flora	Festuca rubra agg.	Red fescue	Fungi	Coprinus lagopus	Haresfoot inkcap
Flora	Festuca rubra commutata	Chewing's fescue	Fungi	Coprinus plicatilis	Pleated inkcap
Flora	Galium verum	Lady's bedstraw	Fungi	Diplocarpon earlianum	
Flora	Holcus lanatus	Yorkshire fog	Fungi	Entoloma conferendum	Star pinkgill
Flora	Hypochaeris radicata	Cat's-ear	Fungi	Entoloma lucidum	Glossy pinkgill*
Flora	Leontodon hispidus	Rough hawkbit	Fungi	Entoloma mougeotii	Slate-grey pinkgill*
Flora	Leucanthemum vulgare	Ox-eye daisy	Fungi	Entoloma sericellum	Cream pinkgill
Flora	Lolium perenne	Perennial rye-grass	Fungi	Entoloma serrulatum	Blue edge pinkgill*
Flora	Lotus corniculatus	Common bird's-foot trefoil	Fungi	Erysiphe aquilegiae var ranunculi	
Flora	Ornithogalum umbellatum	Star-of-Bethlehem*	Fungi	Lacrymaria lacrymabunda	Weeping widow
Flora	Pilosella aurantiaca	Fox-and-cubs	Fungi	Panaeolus acuminatus	Dewdrop mottlegill
Flora	Plantago lanceolata	Ribwort plantain	Fungi	Psathyrella multipedata	Clustered brittlestem
Flora	Potentilla reptans	Creeping cinquefoil	Fungi	Urocystis ranunculi	
Flora	Potentilla tabernaemontani	Spring cinquefoil*	Fungi	Vascellum pratense	Meadow puffball
Flora	Prunella vulgaris	Self-heal	Hemiptera	Aphrodes albifrons	
Flora	Ranunculus bulbosus	Bulbous buttercup	Hymenoptera	Myrmica ruginodis	
Flora	Ranunculus repens	Creeping buttercup	Lepidoptera	Marbled white	Melanargia galathea*
Flora	Rumex acetosa	Common sorrel	Lepidoptera	Meadow brown	Maniola jurtina
Flora	Scorzoneroides autumnalis	Autumn hawkbit	Orthoptera	Chorthippus brunneus	Common field grasshopper
Flora	Senecio erucifolius	Hoary ragwort	Vermes	Octolasion cyaneum	Blue-grey worm

Species associated with Shady Areas, Shrubs and Trees

Araneae	Clubiona compta	Flora	Calystegia sepium sepium	Hedge bindweed	
Aves	Wren Troglodytes troglodytes	Flora	Chamerion angustifolium	Rosebay willowherb	
Bacteria	Agrobacterium tumefaciens	Flora	Circaea lutetiana	Enchanter's nightshade	
Bryophyta	Fissidens taxifolius	Common pocket-moss	Flora	Clematis vitalba	Traveller's-joy
Bryophyta	Hypnum cupressiforme	Cypress-leaved plait-moss	Flora	Cornus sanguinea	Dogwood
Bryophyta	Kindbergia praelonga	Common feather-moss	Flora	Corylus avellana	Hazel
Bryophyta	Plagiomnium rostratum	Long-beaked thyme-moss	Flora	Crataegus monogyna	Hawthorn
Bryophyta	Plagiomnium undulatum	Hart's-tongue thyme-moss	Flora	Digitalis purpurea	Foxglove
Bryophyta	Polytrichastrum formosum	Bank hair-moss	Flora	Dryopteris filix-mas	Male fern
Coleoptera	Athous haemorrhoidalis	Flora	Epilobium hirsutum	Great willowherb	
Coleoptera	Coccinella 7-punctata	7-spot ladybird	Flora	Fagus sylvatica	Beech
Diptera	Platycheirus albimanus	Flora	Fagus sylvatica "purpurea"	Copper beech	
Diptera	Rhamphomyia sulcata	Flora	Fragaria vesca	Wild strawberry*	
Diptera	Taxomyia taxi	Yew artichoke gall	Flora	Fraxinus excelsior	Ash
Flora	Acer campestre	Field maple	Flora	Galium album	Hedge bedstraw
Flora	Acer platanoides	Norway maple	Flora	Galium aparine	Cleavers
Flora	Acer pseudoplatanus	Sycamore	Flora	Geranium robertianum	Herb robert
Flora	Aegopodium podagraria	Ground elder	Flora	Geum urbanum	Wood avens
Flora	Aesculus hippocastaneum	Horse-chestnut	Flora	Hedera helix	Ivy
Flora	Alliaria petiolata	Garlic mustard	Flora	Heracleum sphondylium	Hogweed
Flora	Anthriscus sylvestris	Cow parsley	Flora	Hesperis matronalis	Dame's violet*
Flora	Arum maculatum	Lords-&-ladies	Flora	Hyacinthoides non-scripta	Bluebel
Flora	Betula pubescens	Downy birch	Flora	Hypericum androsaemum	Tutsan*
Flora	Buddleja davidii	Butterfly-bush	Flora	Ilex aquifolium	Holly (AWI)

Flora	<i>Larix decidua</i> European larch	Fungi	<i>Laetiporus sulphureus</i> Sulphur polypore
Flora	<i>Lathyrus pratensis</i> Meadow vetchling	Fungi	<i>Lepiota cristata</i> Stinking dapperling
Flora	<i>Leycesteria formosa</i> Himalayan honeysuckle	Fungi	<i>Lepista nuda</i> Wood blewit
Flora	<i>Lonicera periclymenum</i> Honeysuckle	Fungi	<i>Lyophyllum decastes</i> Clustered domecap*
Flora	<i>Malva moschata</i> Musk mallow	Fungi	<i>Mycena adscendens</i> Frosty bonnet
Flora	<i>Pentaglottis sempervirens</i> Green alkanet	Fungi	<i>Mycena crocata</i> Saffrondrop bonnet*
Flora	<i>Potentilla sterilis</i> Barren strawberry	Fungi	<i>Mycena filopes</i> Iodine bonnet
Flora	<i>Prunus spinosa</i> Blackthorn	Fungi	<i>Mycena flavescens</i> Yellowing bonnet*
Flora	<i>Quercus robur</i> Pedunculate oak	Fungi	<i>Mycena galopus</i> var. <i>nigra</i> Black milking bonnet*
Flora	<i>Rhamnus cathartica</i> Buckthorn	Fungi	<i>Mycena inclinata</i> Clustered bonnet
Flora	<i>Rosa arvensis</i> Field rose	Fungi	<i>Mycena leptocephala</i> Nitrous bonnet
Flora	<i>Rosa canina</i> Dog-rose	Fungi	<i>Mycena pura</i> Lilac bonnet
Flora	<i>Rubus fruticosus</i> agg. Bramble	Fungi	<i>Mycena rorida</i> Dripping bonnet*
Flora	<i>Rubus idaeus</i> Raspberry	Fungi	<i>Mycena stipata</i> Stump bonnet
Flora	<i>Rumex sanguineus</i> Wood dock	Fungi	<i>Pluteus cervinus</i> Deer shield
Flora	<i>Sambucus nigra</i> Elder	Fungi	<i>Pluteus podospileus</i> Dark brown shield*
Flora	<i>Solanum dulcamara</i> Bittersweet	Fungi	<i>Psathyrella microrhiza</i> Rootlet brittlestem
Flora	<i>Sorbus aucuparia</i> Rowan	Fungi	<i>Psathyrella piluliformis</i> Common stump brittlestem
Flora	<i>Stachys sylvatica</i> Hedge woundwort	Fungi	<i>Pseudoclitocybe cyathiformis</i> Goblet
Flora	<i>Tamus communis</i> Black bryony	Fungi	<i>Russula aeruginea</i> Green brittlegill
Flora	<i>Taxus baccata</i> Yew	Fungi	<i>Russula amoenolens</i> Sepia brittlegill*
Flora	<i>Tilia x europaea</i> Lime	Fungi	<i>Russula atropurpurea</i> Purple brittlegill
Flora	<i>Urtica dioica</i> Stinging nettle	Fungi	<i>Russula caerulea</i> Humpback brittlegill
Flora	<i>Verbascum nigrum</i> Dark mullein*	Fungi	<i>Russula cyanoxantha</i> Charcoal burner
Flora	<i>Vicia sepium</i> Bush vetch	Fungi	<i>Russula delica</i> Milkwhite brittlegill*
Fungi	<i>Agaricus augustus</i> The Prince*	Fungi	<i>Russula nobilis</i> Beechwood sickener
Fungi	<i>Agaricus silvaticus</i> Blushing wood mushroom	Fungi	<i>Russula ochroleuca</i> Ochre brittlegill
Fungi	<i>Amanita rubescens</i> The Blusher	Fungi	<i>Russula xerampelina</i> Crab brittlegill
Fungi	<i>Amanita vaginata</i> Grisette*	Fungi	<i>Suillus granulatus</i> Weeping bolete
Fungi	<i>Auricularia auricula-judae</i> Jelly-ear	Fungi	<i>Suillus variegatus</i> Velvet bolete*
Fungi	<i>Boletus queletii</i> Deceiving bolete*	Fungi	<i>Tricholoma saponaceum</i> Soapy knight*
Fungi	<i>Clavulina rugosa</i> Wrinkled club	Fungi	<i>Tricholoma terreum</i> Grey knight
Fungi	<i>Clitocybe geotropa</i> Trooping funnel	Fungi	<i>Tricholoma virgatum</i> Ashen knight*
Fungi	<i>Clitocybe houghtonii</i> Houghton funnel*	Fungi	<i>Tubaria dispersa</i>
Fungi	<i>Clitocybe vibecina</i> Mealy funnel	Fungi	<i>Xerocomellus chrysenteron</i>
Fungi	<i>Collybia butyracea</i> Buttercap	Fungi	<i>Xerocomellus porosporus</i> Sepia bolete*
Fungi	<i>Coprinus disseminatus</i> Fairy inkcap	Fungi	<i>Xerula radicata</i> Rooting shank
Fungi	<i>Cortinarius anomalus</i> Variable webcap	Fungi	<i>Xylaria hypoxylon</i> Candlesnuff fungus
Fungi	<i>Cortinarius decipiens</i> Sepia webcap*	Hemiptera	<i>Dolycoris baccarum</i> Hairy shieldbug
Fungi	<i>Cystoderma carcharias</i> Pearly powdercap*	Hemiptera	<i>Gonocerus acuteangulatus</i> Box bug*
Fungi	<i>Entoloma clypeatum</i> Shield pinkgill	Hemiptera	<i>Pinalitus cervinus</i>
Fungi	<i>Grifola frondosa</i> Hen of the woods	Hemiptera	<i>Troilus luridus</i>
Fungi	<i>Hypholoma fasciculare</i> Sulphur tuft	Lepidoptera	<i>Brimstone</i> <i>Gonepteryx rhamni</i>
Fungi	<i>Inocybe assimilata</i> White-root fibre-cap*	Lepidoptera	<i>Comma</i> <i>Polygonia c-album</i>
Fungi	<i>Inocybe flocculosa</i> Fleecy fibre-cap*	Lepidoptera	<i>Cream wave</i> <i>Scopula floslactata</i>
Fungi	<i>Inocybe geophylla</i> White fibre-cap	Lepidoptera	<i>Hedge brown</i> <i>Pyronia tithonus</i>
Fungi	<i>Inocybe rimosa</i> Split fibre-cap	Lepidoptera	<i>Holly blue</i> <i>Celastrina argiolus</i>
Fungi	<i>Inonotus hispidus</i> Shaggy bracket	Lepidoptera	<i>Horse-chestnut leaf-miner</i> <i>Cameraria ohridella</i>
Fungi	<i>Laccaria laccata</i> Deceiver	Lepidoptera	<i>Painted lady</i> <i>Cynthia cardui</i> *
Fungi	<i>Laccaria purpureobadia</i> *	Lepidoptera	<i>Red admiral</i> <i>Vanessa atalanta</i>
Fungi	<i>Lactarius blennius</i> Beech milkcap	Lepidoptera	<i>Ringlet</i> <i>Aphantopus hyperantus</i>
Fungi	<i>Lactarius circellatus</i> *	Lepidoptera	<i>Speckled wood</i> <i>Pararge aegeria</i>
Fungi	<i>Lactarius deliciosus</i> Saffron milkcap	Mammalia	<i>Bank vole</i> <i>Clethrionomys glareolus</i>
Fungi	<i>Lactarius deterrimus</i> False saffron milkcap	Mammalia	<i>Common pipistrelle</i> <i>Pipistrellus pipistrellus</i>
Fungi	<i>Lactarius fluens</i> *	Mollusca	<i>Arion fasciatus</i> *
Fungi	<i>Lactarius fuliginosus</i> Sooty milkcap*	Mollusca	<i>Cepaea hortensis</i> White-lipped banded snail
Fungi	<i>Lactarius pallidus</i> Pale milkcap*	Mollusca	<i>Cepaea nemoralis</i> Brown-lipped banded snail
Fungi	<i>Lactarius pyrogalus</i> Fiery milkcap	Mollusca	<i>Cornu aspersum</i> Garden snail
Fungi	<i>Lactarius rufus</i> Rufous milkcap	Mollusca	<i>Discus rotundatus</i> Rounded snail
Fungi	<i>Lactarius subdulcis</i> Mild milkcap	Reptilia	<i>Slow-worm</i> <i>Anguis fragilis</i>

Species of Walls, Stonework and other Bare places

Bryophyta	Barbula convoluta	Lesser bird's-claw beard-moss	Flora	Asplenium adiantum-nigrum	Black spleenwort*
Bryophyta	Bryum caespitium	Tufted thread-moss	Flora	Asplenium ruta-muraria	Wall-rue*
Bryophyta	Bryum capillare	Capillary thread-moss	Flora	Asplenium scolopendrium	Hart's-tongue fern*
Bryophyta	Grimmia pulvinata	Grey-cushioned grimmia	Flora	Cochlearia danica	Danish scurvy-grass
Bryophyta	Grimmia trichophylla	Hair-pointed grimmia*	Flora	Mycelis muralis	Wall lettuce*
Bryophyta	Orthotrichum anomalum	Anomalous bristle-moss	Flora	Poa annua	Annual meadow-grass
Bryophyta	Tortula muralis	Wall screw-moss	Flora	Polypodium vulgare	Polypody

Species of Disturbed Ground

Flora	Anagallis arvensis	Scarlet pimpernel	Flora	Matricaria chamomilla	Scented mayweed
Flora	Cerastium fontanum	Common mouse-ear	Flora	Plantago major	Greater plantain
Flora	Convolvulus arvensis	Field bindweed	Flora	Senecio vulgaris	Groundsel
Flora	Epilobium ciliatum	American willowherb	Flora	Sonchus asper	Prickly sow-thistle
Flora	Fallopia convolvulus	Black bindweed	Flora	Sonchus oleraceus	Smooth sow-thistle
Flora	Impatiens parviflora	Small balsam*	Flora	Veronica persica	Common field speedwell
Flora	Lepidium didymum	Lesser swine-cress*			

Species Living on or with Fungi

Coleoptera	Cryptopleurum minutum		Collembola	Orchesella villosa	
Coleoptera	Mycetophagus piceus*		Diptera	Suillia notata	
Coleoptera	Smicrus filicornis*		Hemiptera	Scolopostethus affinis	
Coleoptera	Sunius propinquus		Isopoda	Philoscia muscorum	
Coleoptera	Tachyporus dispar		Mollusca	Arion hortensis	Blue-black soil slug
Collembola	Desoria tigrina				

Species Living on Plants

Coleoptera	Anthrenus fuscus		Coleoptera	Oedemera nobilis	
Coleoptera	Aphthona euphorbiae	Large flax flea beetle	Coleoptera	Rhizobius litura	
Coleoptera	Cassida rubiginosa		Coleoptera	Sitona hispidulus	
Coleoptera	Ceutorhynchus pallidactylus	Cabbage stem weevil	Diptera	Agromyza idaeina	
Coleoptera	Cionus hortulanus*		Diptera	Liriomyza congesta	
Coleoptera	Longitarsus melanocephalus		Diptera	Pegomya solennis	
Coleoptera	Malachius bipustulatus		Diptera	Phytomyza fallaciosa	
Coleoptera	Meligethes aeneus	Pollen beetle	Diptera	Phytomyza minuscula	
Coleoptera	Meligethes carinulatus*		Fungi	Phragmidium violaceum	Violet bramble rust

Species of Vegetable Litter

Coleoptera	Acrotona aterrima		Fungi	Marasmius androsaceus	Horsehair parachute
Coleoptera	Acrotrichis [intermedia]		Fungi	Marasmius rotula	Collared parachute
Fungi	Conocybe rickenii	Mould conecap*	Fungi	Mycena clavicularis*	
Fungi	Coprinus niveus	Snowy inkcap	Fungi	Tubaria furfuracea	Scurfy twiglet
Fungi	Crepidotus cesatii/variabilis	Variable oysterling	Vermes	Dendrobaena octaedra	Octagonal-tailed worm
Fungi	Marasmiellus vaillantii	Goblet parachute			

Species of Generalised Habitats

Acari	Parasitus sp.		Diptera	Tipula pagana	
Amphibia	Common frog	Rana temporaria	Flora	Glechoma hederacea	Ground ivy
Amphibia	Common toad	Bufo bufo*	Flora	Hypericum perforatum	Perforate St.John's-wort
Aves	Goldcrest	Regulus regulus	Flora	Lamium album	White dead-nettle
Aves	Greenfinch	Carduelis chloris	Flora	Lapsana communis	Nipplewort
Aves	Mallard	Anas platyrhynchos	Flora	Myosotis arvensis	Field forgetmenot
Aves	Robin	Erithacus rubecula	Flora	Rumex obtusifolius	Broad dock
Bryophyta	Dicranella heteromalla	Silky forklet-moss	Flora	Taraxacum officinale agg.	Dandelion
Bryophyta	Pseudoscleropodium purum	Neat feather-moss	Flora	Veronica serpyllifolia	Thyme-leaved speedwell
Coleoptera	Stenus clavicornis		Flora	Viola riviniana	Common dog-violet
Diptera	Eristalis pertinax		Fungi	Cordyceps militaris	Scarlet caterpillarclub*
Diptera	Melanostoma scalare		Hemiptera	Aphrodes bifasciatus	
Diptera	Mesembrina meridiana		Hymenoptera	Bombus lapidarius	Large red-tailed bumble-bee
Diptera	Thaumatomyia notata	Small cluster-fly	Hymenoptera	Bombus lucorum	White-tailed bumble-bee

Hymenoptera Bombus pascuorum Common carder bee
 Hymenoptera Bombus terrestris Buff-tailed bumble-bee
 Isopoda Oniscus asellus
 Isopoda Porcellio scaber
 Isopoda Trichoniscus pusillus

Lepidoptera Small white Pieris rapae
 Mammalia Badger Meles meles*
 Mammalia Weasel Mustela nivalis
 Odonata Pyrrhosoma nymphula Large red damselfly

Planted Species (not a complete list)

Flora Amelanchier lamarckii Juneberry*
 Flora Aquilegia vulgaris Columbine
 Flora Buxus sempervirens Box*
 Flora Cortaderia selloana Pampas grass
 Flora Cosmos bipinnatus Mexican aster
 Flora Crocosmia x crocosmiiflora Montbretia
 Flora Crocus tommasinianus Early crocus
 Flora Euphorbia lathyris Caper spurge
 Flora Galanthus nivalis Snowdrop
 Flora Galanthus nivalis 'flore pleno' Snowdrop
 Flora Geranium sanguineum Bloody cranesbill
 Flora Hyacinthoides hispanica Spanish bluebell
 Flora Iris foetidissima Stinking iris
 Flora Lavandula angustifolia Garden lavender
 Flora Lysimachia nummularia Creeping Jenny
 Flora Melissa officinalis Balm
 Flora Muscari armeniacum Garden grape-hyacinth
 Flora Narcissus cv.'Ice Follies'
 Flora Narcissus cv.'Ptolemy'

Flora Narcissus cv.'Telamonius Plenus'
 Flora Narcissus pseudonarcissus Daffodil
 Flora Narcissus pseudonarcissus major cv 'Dutch Master'
 Flora Oenothera biennis Common evening-primrose
 Flora Persicaria amplexicaulis Red bistort
 Flora Pieris japonica
 Flora Primula vulgaris Primrose
 Flora Primula x polyantha cv. Polyanthus
 Flora Prunus lusitanica Portugal laurel
 Flora Pseudotsuga menziesii Douglas fir
 Flora Pulmonaria officinalis Lungwort
 Flora Ribes nigrum Blackcurrant*
 Flora Ribes sanguineum Flowering currant
 Flora Rosa "Hollandica" Dutch rose
 Flora Sedum album White stonecrop
 Flora Sedum forsterianum Rock stonecrop
 Flora Tanacetum parthenium Feverfew
 Flora Vinca minor Lesser periwinkle



'Ptolemy' Narcissus