St James's churchyards and the wildlife in them

Overview and background

St James the Greater, Gretton, has two churchyards. The main (Upper) churchyard is formally closed, and part maintained (grass cutting, boundary maintenance, safety of headstones) by North Northamptonshire Council. The Lower churchyard, the 'new' graveyard, is part maintained by Gretton Parish Council's contractors. However, the development and the routine maintenance of both is undertaken by local members of the St James and wider community who have, for several decades, encouraged wildlife-friendly areas.



Figure 1: Views of the church (L) from the south, and (centre and R) from the northwest showing its position on the Jurassic ridge, in winter and summer (the rise on the left contains the C19 cart wash / pond).

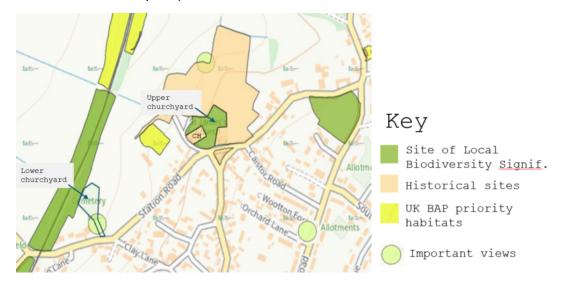


Figure 2: Map showing the two churchyards and other village features (from North Northamptonshire Council, <u>Gretton Neighbourhood Plan.</u> See also Appendix 1.

Physical aspects of the churchyards

The church sits at the top of a steep rise SE of the River Welland, on the northern edge of the old Rockingham Forest (Figs 1&2). The Upper Churchyard (0.51Ha, 1.27 acres, including the church – Appendix 1) sits on thin soils overlying the oolite limestone of the Jurassic Ridge, while the Lower Churchyard (0.27Ha, 0.67 acres – Appendix 1) lies on heavy clay. Upper Churchyard neighbours a steep, in places vertical, escarpment, sloping paddocks/grazing, gardens and the village green. The Lower Churchyard (Fig 2), southwest of the Upper Churchyard and down a short track off Station Road, includes a small area of woodland bounded by a small stream, the other side of which a large railway embankment rises up sharply.

The Upper Churchyard itself and the railway embankment next to the Lower Churchyard are both Sites of Local Biodiversity Significance (Fig 2)

Upper Churchyard has no natural water of its own, but just below a particularly steep and walled escarpment is a council-owned cobbled track and water trough which collects water from a nearby spring. This drains to a shallow pond, built for washing cartwheels in the 19th Century (Fig 3). Also not on church property, beyond this relatively modern pond, are several mediaeval fishponds, also fed from the spring (via the cart pond), now tree-lined (Fig 3).



Figure 3: A: Map from <u>An Inventory of the Historical Monuments in the County of Northamptonshire</u>, with additional features marked, and B: arial view from Google Maps showing extent of Upper Yard. C is a view of the C19 new pond from the Upper Churchyard.

The Upper Churchyard is largely surrounded by low stone walls, although the escarpment has a fence at the top for safety.

While some of the NW-facing lower slope below the church results from early 20th Century iron-ore mining, much is protected from anything other than grazing owing to historical building remains and pre-enclosure ridge-and-furrow, which makes for particularly dramatic views from the Upper Churchyard at sunrise and sunset as the shadows move across the differently facing hills on both sides of the Welland Valley (Fig 4), .



Figure 4: The view through cow parsley to the north, from a wildflower area of the Upper Churchyard, showing ridge and furrow pasture; some of the lichen on gravestones and trees.

The Lower Churchyard has fenced pasture to the eastern side, gardens (bordered by a conifer hedge) to the western side, and merges with woodland continuous with the railway embankment at the bottom of the slope to the north. It comprises three main areas: a grassed area over dark chippings, an active graveyard, and a fenced area of long grass and bramble patches that merge into mixed broadleaf woodland (Fig 5)



Figure 5: a 'panoramic' view of the Lower Churchyard showing the active graveyard area (left of image) and the wilder area merging to woodland (right of image).

Plant wildlife

Both churchyards currently contain areas of frequently cut grass and attended graves, plus areas with a mixture of varying length sward, naturally occurring and sown wildflower mixes, and areas with near absence of input, resulting in brambles and patches of early secondary woodland. In addition, the Upper Churchyard participates in 'no mow May' – so, apart from a simple mown path, it is covered in early summer flowers (Fig 6).

Figure 6: self-sown wildflowers in the upper churchyard during May

In addition to ornamental trees and shrubs, there are also the usual garden 'escapes' in both churchyards which we refuse to remove as they are good for pollinators and human visitors alike. The upper Churchyard has mostly ornamental/cultivar trees within the churchyard itself, whereas the Lower Graveyard also has a mature, oak-

dominated woodland. In the Lower churchyard, which is much newer and was previously pastureland, the edge and woodland areas have recently been planted with native bluebells, snowdrops and daffodils and other appropriate wild species.

The gravestones in the Upper Churchyard carry a variety of lichens and mosses (Fig 4), reflecting both their age and the variety of stone, as do the church and boundary walls (local limestone/ironstone), and the trees in and around both churchyards.

For maps of trees see Appendix 1.

Lists of trees and shrubs are in Appendix 2

Animal wildlife

Invertebrates

No formal invertebrate surveys have been undertaken, although through in just a few nights in June to September 2023, over 50 species of macromoths were collected (Fig 7) in a light trap, and several common butterfly species have been noted in passing – including red admiral, peacock, orange tip and meadow brown.



Figure 7: A small selection of moths collected in the churchyard in 2023

Lists of moths are in Appendix 2

Birds

Several trees in the Upper Churchyard have nest boxes, but there are currently no bird feeders. Corvids (common crow, rook, jackdaw) are common, along with the expected small passerines, wood pigeons, collared and stock doves. Red kites (and occasional buzzards) commonly float over both churchyards and nest nearby, kestrels often hover over nearby roads and sparrow hawks are frequently seen hunting. At night, tawny owls are commonly heard, and barn owls sometimes hunt in the fields below the church. Although there are many swifts and swallows, and some house martins, nesting elsewhere in the village, and they often hunt around and above the churchyards, they do not nest on the church itself.

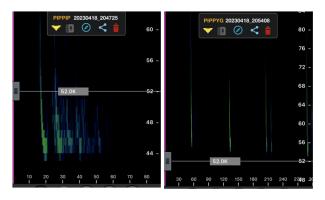
Lists of birds are in Appendix 2

Mammals



Figure 8: L-to-R Norman the wood mouse (as named by the village Beavers), and trailcam images of a muntjac, a badger and a fox caught on trailcams in the Upper and Lower Churchyards.

Wood mice, bank voles and field voles are all found in both churchyards – and house mice occasionally within the church itself, including the crypt. Grey squirrels abound, as do hedgehogs throughout the village but we have not picked them up on trailcams. The trailcams have, however, detected frequent foxes, badgers and rabbits, plus a rat (in the Lower Churchyard) and frequent muntjac (Fig 8) and domestic cats at both sites. Roe deer are seen in surrounding fields and woodland but not so far in either churchyard.



The church porch houses a variably sized summer roost of soprano pipistrelles. A long eared bat was once found in the church and common pipistrelles, noctules and sometimes other bats can be commonly detected foraging in the trees and hedgerows (Fig 9).

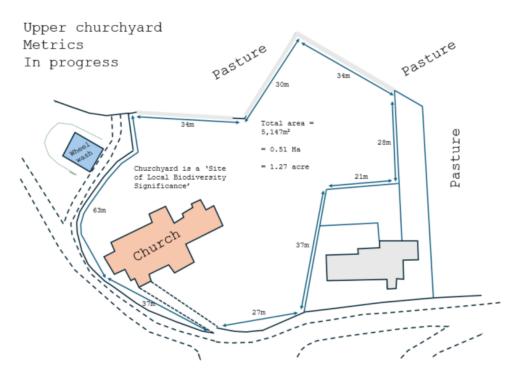
Figure 9: Sonographs of common and soprano pipistrelles in Upper Churchyard

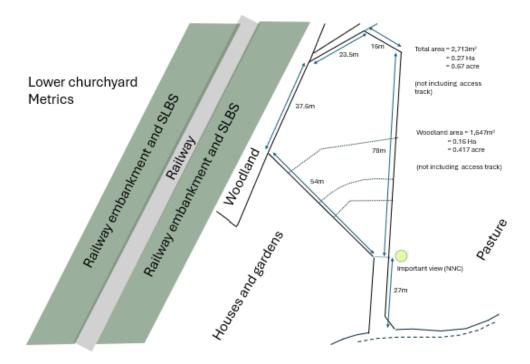
Lists of mammals are in Appendix 2

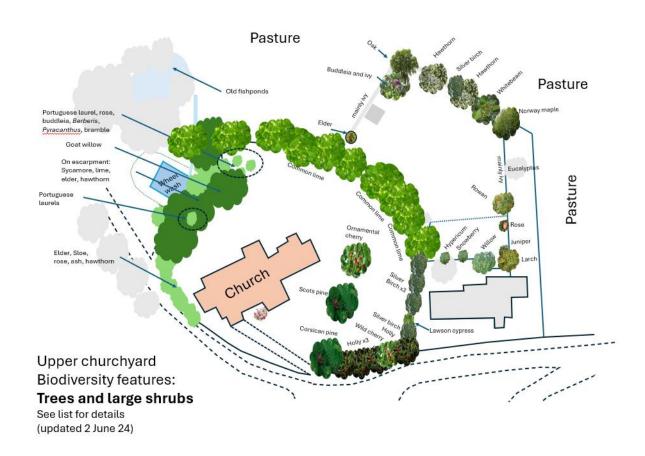
Appendix 1: Maps

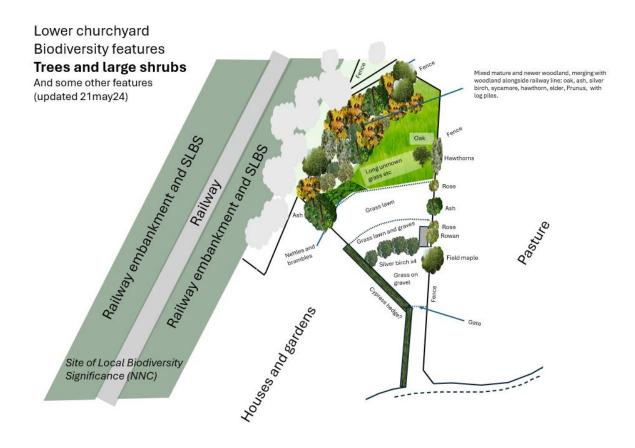
Maps from North Northamptonshire Council, Gretton Neighbourhood Plan

https://experience.arcgis.com/experience/bb4853e6f46e403286dcda6411c73860), with Google maps aerial view









Appendix 2 – Lists of wildlife

Surveys and lists are being constantly updated.

Tree and shrub list (Upper Churchyard)

(Updated 23 June 2024)

- 'Firethorn' (Pyracantha sp?)
- Ash (Fraxinus excelsior)
- Berberry (Berberis darwinii)
- Bramble (Rubus fruticosus)
- Buddleia (Buddleja davidii)
- Cherry ornamental (Prunus serrulata)
- Cherry wild (Prunus avium)
- Common lime (Tilia x europaea)
- Corsican pine (Pinus nigra)
- Dog rose (Rosa canína)
- Elder (Sambucus nígra)
- European larch (Laríx decidua)
- Field maple (Acer platenoides)
- Goat willow (Salix caprea)

- Hawthorn (Cretagus monogyna)
- Holly (Ilex aquifolium)
- Hypericum sp?
- Juniper (Juniperus ???)
- Lawson cypress
 (Chamaecyparis
 lawsoniana)
- Magnolía sp?
- Oak (Quercus robur)
- Portuguese laurel (Prunus lusitanica)
- Rose (Rosa spp)
- Rowan (Sorbus aucuparía)
- Silver birch (Betula pendula)
- Sloe (Prunus spinosa)
- Sycamore (Acer pseudoplatanus)
- Whitebeam (Sorbus aria)

Tree list (Lower Churchyard)

(updated 21may24)

- Ash (Fraxinus excelsior)
- Bramble (Rubus frutícosus)
- Dog rose (Rosa canina)
- Elder(Sambucus nígra)
- Field maple (Acer compestre)
- Hawthorn (Cretagus monogyna)

- Oak (Quercus robur)
- Rowan (Sorbus aucuparía)
- Silver birch (Betula pendula)
- Sloe (Prunus spínosa)
- Sycamore (Acer pseudoplatanus)

Wildflower list (Upper Churchyard)

(Updated 23 June 2024)

- American willowherb (Epilobium ciliatum)
- Autumn hawkbit
 (Scorzoneroides autumnalis)
- Black medic (*Medicago* lupulina)
- Bluebell (Hyacinthoides sp)
- Broad leaved dock (Rumex obtusifolius)
- Broadleaved willow herb
 (Epilobium montanum)
- Bryony (Bryonia cretica)
- Bugle (Ajuga reptans)
- Cicely (Myrrhis odorata)
- Clustered dock (Rumex conglomeratus)
- Common cleavers (Gallium aparine)
- Common (lesser) knapweed
 (Centaurea nígra)
- Common poppy (Papaver rhoeas)
- Common sorrel (Rumex acetosa)
- Common sow thistle (Sonchus oleraceus)
- Cow parsley (Anthriscus sylvestris)
- Cowslip (Primula veris)
- Creeping buttercup
 (Ranunculus repens)

- Creeping thistle (Cirsium arvense)
- Cuckooflower (Cardamine pratensis)
- Cuckoo pint / Lords and ladies (Arum maculatum)
- Daffodil (Narcissus pseudonarcissus and cultvars)
- Daisy (Bellis perennis)
- Field woodrush (*Luzula* campestrís)
- Feverfew (Tanacetum partheníum)
- Forget me not (Myosotís sylvatíca)
- Garlic mustard (Alliaria petiolate)
- Germander speedwell (Veronica chamaedrys)
- Greater burdock (Arctium lappa)
- Greater celandine
 (Chelidonium majus)
- Greater plantain (Plantago major)
- Green alkanet (Pentaglottis sempervirens)
- Ground ivy (Glechoma hereracea)
- Groundsel (Senecio vulgaris)

- Hedgerow cranesbill (Geranium pyrenaicum)
- Hedge woundwort (Stachys sylvatica)
- Herb Robert (Geraníum robertíanum)
- Hogweed (Heracleum sphondylium)
- Ivy (Hedera helix)
- Ladíes bedstraw (Gallíum verum)
- Lesser celandine (Ficaria verna)
- Lesser trefoil (Trifolium dubium)
- Meadow buttercup
 (Ranunculus acrís)
- Nettle (urtica dioca)
- Oxeye daisy (Leucanthmum vulgare)
- Pansy (Víola X wíttrockíana)
- Prickly sow thistle (Sonchus asper)
- Prímrose (Prímula vulgarís and cultívars)

- Ragwort (Jacobea vulgarís)
- Ramsons (Allium ursinum)
- Red clover (Trifolium pratense)
- Ríbwort plantaín (Plantago lanceolata)
- Rosebay willowherb
 (Chamerion angustifolium)
- Rough Hawkbit Leontodon hispidus
- Snowdrop (Galanthus nívalís)
- Sow thistle (Sonchus arvensis)
- Spear thistle (Cirsium vulgare)
- Speedwell (Veronica officinalis)
- Teasel (Dípsacus fullorum)
- White dead nettle (Lamium album)
- Wood avens (Geum urbanum)
- Woody nightshade
 (Solanum dulcmara)

Grasses

(Updated 23 June 2024)

- Annual meadow gras (Poa annua)
- Barren brome (Bromus sterílís)
- Cocksfoot (Dactylis glomerata)
- Common False-brome
 (Brachypodium sylvaticum)
- Common meadow grass (Poa pratensis)
- Creeping soft grass (Holcus mollis)
- Meadow foxtail (Alopecurus pratensis)
- Rough meadow grass (Poa trívialis)
- Sheeps fescue (Festuca ovina)
- Squirrel tail fescue (Festuca (Vulpía) bromoides)
- Wall barley (Hordeum murínum)
- Wild oat (Avena fortua)
- Wood Meadow-grass (Poa nemoralis)

Non-flowering plants

(draft list 27may24 – very much TBD!)

Grey cushion moss (Grimmia pulvinata)

Lichens

(very much TBD!)

Lichens

(very much TBD!)

Birdlist for the (upper) churchyard

- Sparrowhawk
- Red kite
- Black-headed Gull
- Woodpigeon
- Collared Dove
- · Tawny Owl
- · swift
- Great Spotted-Woodpecker
- Kestrel
- Magpie
- Rook
- Carríon Crow
- Jackdaw
- · Coal Tit
- Blue Tit
- Great Tit
- Swallow
- House Martin

- · Long-tailed Tit
- Chiffchaff
- Blackcap
- Wren
- Nuthatch
- Treecreeper
- Starling
- Blackbird
- · Song Thrush
- Mistle Thrush
- Robin
- House Sparrow
- Dunnock
- Píed Wagtaíl
- · Greenfinch
- · chaffinch
- Goldfinch

Mammal list for the combined churchyards

- Badger
- · Bank vole
- Brown rat*
- Common pipistrelle
- Domestic cat*
- Grey squirrel*
- House mouse
- Field vole
- - *non-native

- Lesser noctule (Leísler's) bat
- · Long eared bat
- Muntjac*
- Noctule
- · Red fox
- Soprano pipistrelle
- Wood mouse

Moth list (Upper Churchyard)

- Angle shades
- Black rustic
- Blood vein
- Box tree moth*
- Brímstone
- · Brindled beauty
- Buffermine
- Burníshed brass
- Canary shouldered thorn
- Clouded border
- · Common quaker
- Common rustíc
- · common swift
- Common wainscot
- Common whitewave
- Dark arches
- Elephant hawkmoth
- Flame
- Flame carpet
- Green arches
- · Green carpet
- · Grey pug
- Heart and dart
- Heart and club
- Hebrew letter
- Light emerald
 - *non-native

- Mother of pearl
- Muslin
- Pale prominent
- Píne hawkmoth
- Plume moths
- Poplar hawkmoth
- Prívet hawkmoth
- Ríband wave
- Ruby tiger
- Scarce silver lines
- Scarlet tiger
- · Scorched wing
- · Setaceous Hebrew letter
- Shoulder striped wainscot
- · Silver Y
- Small elephant hawkmoth
- · Small magpie
- Spectacled
- Swallowtail
- Treble lines
- Tríple wave
- Water carpet
- · waved umber
- White ermine