

David Nicholls Consulting
Ecology • Wildlife • Conservation

Blaby Old Cemetery
an ecological assessment

a survey conducted on behalf of Blaby Parish Council

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Blaby Old Cemetery – ecological assessment

Introduction

Blaby Parish Council manages land on the east of Blaby village as an active cemetery. Within this area is the 'old cemetery', established in the late 19th century and now managed as a nature area. The old cemetery includes a small former chapel which is currently used for storage. The Parish Council would like to restore this chapel for non-denominational use during funerals. These plans include reopening the original access path to the chapel from Mill Lane and the creation of a new access path from the chapel, through the old cemetery to an area of hard standing, proposed as a new seating area.

I was asked to visit the old cemetery to undertake an ecological survey in order to assess its biodiversity value and to advise on the route of the new access paths to avoid damaging any particular areas of high value.

A site visit was conducted on Friday 24th June 2016 which included a tour of the cemetery by David Statham, Chair of Blaby Parish Council. This tour included areas adjacent to the old cemetery that could be affected by the development plans, including an adjacent field which was recently purchased with the intention of developing a natural burial area (see Figure 1 below). This report includes a number of suggestions about the development and management of these areas.

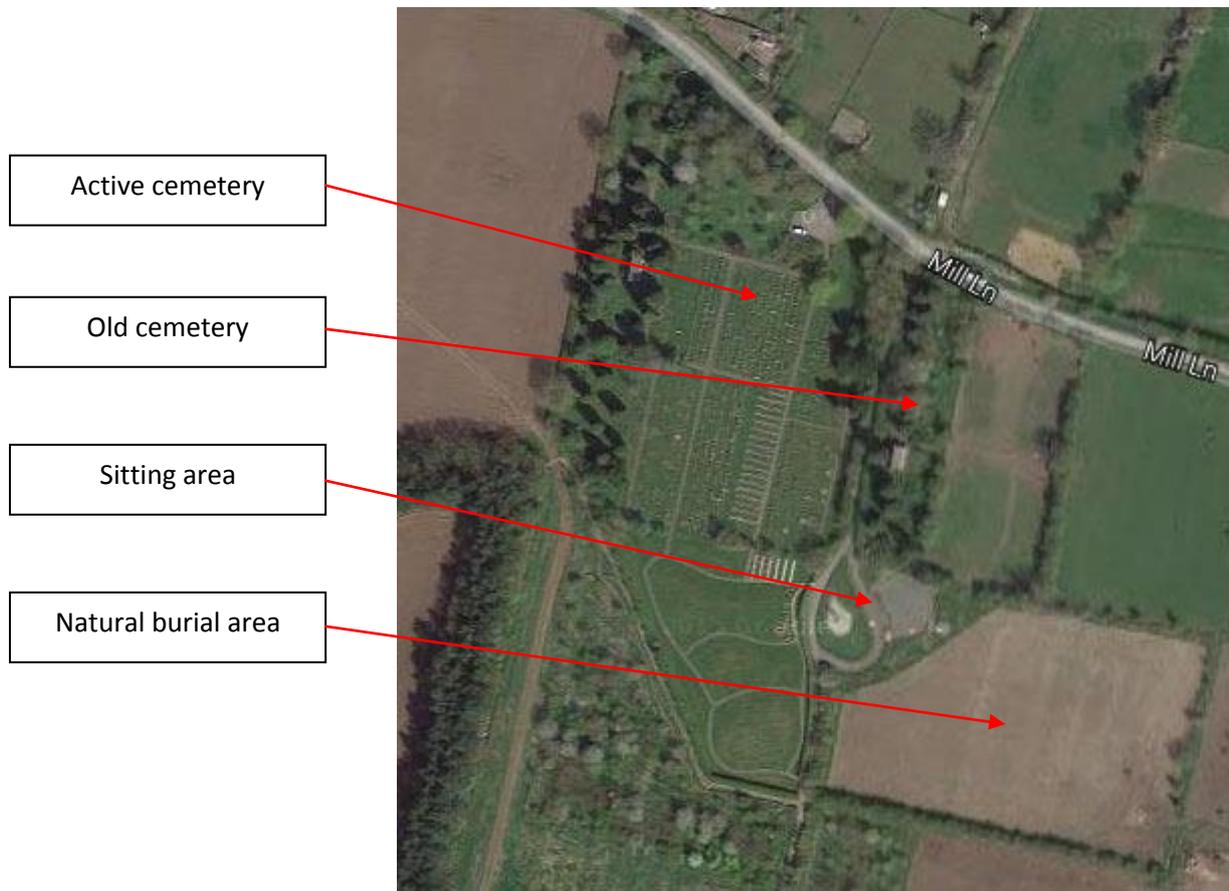


Figure 1: Blaby Cemetery

Blaby Old Cemetery

This area lies to the east of the main cemetery and is separated by a bridleway and bordered by a hedge (and within this an old metal fence). The chapel is located near to the middle of the site, as shown in Figure 2 below. Pasture grassland, currently grazed by horses, borders the site to the east.



Figure 2: Blaby Old Cemetery

Ecological description

The old cemetery is approximately 50% grassland and 50% tree cover. It is bordered along the west and southern boundaries by a mature hedge. A list of species found during the site visit is provided in appendix 1.

The grassland is tall and unmown, and covers the grave stones that lie over most of the site. Most parts are dominated by False Oatgrass *Arrhenatherum elatius* but the grassland to the east of the original access path is dominated by Yorkshire Fog *Holcus lanatus*. A number of other herbaceous plants grow amongst this grassland, including desirable meadow species such as Lady's Bedstraw *Galium verum*, Common Knapweed *Centaurea nigra* and Common Sorrel *Rumex acetosa*.

The original access path connecting Mill Lane to the chapel is very overgrown. The path is lined along the east by a line of large trees, mainly comprising alternating Cherry trees *Prunus sp.* and Lawson's Cypress *Chamaecyparis lawsoniana*. The original hard standing path surface appears to remain under several centimetres of soil and leaf debris.

There are also numerous additional planted trees around the site, including several relatively young specimens, including Cherry *Prunus sp.*, Silver Birch *Betula pendula*, English Oak *Quercus robur*, Ash *Fraxinus excelsior* and Hazel *Corylus avellana*.

The hedge is predominantly Hawthorn *Crataegus monogyna* but with a few specimens of Elder *Sambucus nigra* and Holly *Ilex aquifolium*.

The informal paths around the chapel provide a further habitat for smaller plants that would not be able to thrive in the grass dominated meadow areas. These include Biting Stonecrop *Sedum acre* and Wall Speedwell *Veronica arvensis*.

The site was found to support a rich diversity of invertebrates, including several hoverfly, dipteran and moth species (see appendix 1). Of note is the sawfly *Tenthredopsis coquebertii*, a new species for Leicestershire.



Tenthredopsis coquebertii

Assessment and recommendations

The old cemetery provides valuable wildlife habitat and supports a wide range of species. Its continued management as a nature area for both wildlife and public benefit is highly recommended.

The mix of grassland, trees and hedge provides excellent habitat structure at present but this will change without active management. In particular, if the trees continue to grow unchecked they will shade out the grassland and the old cemetery will effectively become woodland. The meadow grassland is arguably the most important habitat feature and should not be allowed to decline. Its value is complimented by a few trees and the boundary hedge and this structure also presents an attractive landscape for people as well.

To both protect, and potentially improve, the ecological value of the site the following issues should be considered.

Access path

Restoring the original access path connecting Mill Lane to the chapel should not present any ecological risk as there is a path already in situ. The main challenge is what to do with the row of large trees along the path edge.

1. The Lawson's Cypress trees are of limited ecological value and cast dense shade preventing the growth of most other flora. It is recommended that all of these are removed.
2. The large Cherry trees along the path also cast shade and limit the meadow grassland. It is recommended that most are removed, leaving just one if desired. These are large trees within a small site and if left will compromise the meadow grassland.
3. The proposed new access path from the chapel to the sitting area could be aligned to suit practical requirements, such as avoiding gravestones, as the grassland is fairly homogenous in its species make-up. However any path would impact negatively on the existing grassland habitat, both by the requirement to install an ecologically barren hard surface over the ground and also because of the need to cut the taller vegetation on either side of the path to maintain open access. It is therefore recommended that consideration be given to utilising the existing bridleway path as an alternative. This runs to the same destination point and is only a few metres away from the proposed new path.

Trees and hedge

It is recommended that most of the existing trees are either removed or managed to prevent erosion of the meadow grassland by shading.

4. In addition to recommendation 1 and 2 above, consideration should be given to selectively removing a number of the other trees across the site. There are currently too many for the size of the site if the grassland is to be maintained.
5. The majority of the remaining trees should be either coppiced (for example on a 5-7 year cycle) or pruned to maintain a smaller size.

6. The boundary hedge has become over-mature and urgently requires maintenance as it is contributing to the shading of the grassland. The hedge could be easily managed by coppicing the existing Hawthorn to ground level and allowing it to regrow. Some gap planting with other native hedge species could be carried out at this time. This work could be carried out in several phases to limit the visual impact.

Grassland management

The meadow grassland is typical of unmown churchyards due to high soil fertility which enables larger grasses and herbaceous plants to dominate at the expense of smaller species. As a result the plant diversity is diminished. However there a number of other species present in the cemetery though not in high abundance. Greater diversity could be encouraged by appropriate grassland management.

7. It is recommended that the grassland is annually strimmed as short as possible in the late summer and all cuttings removed. Over time this will reduce the fertility of the soil and prevent domination by large species. It will also prevent invasion by trees and shrubs that will happen in time without intervention.

Sitting Area

To the south of the old cemetery there is an area of hard standing covered in granite chippings, originally created as car parking space. It is proposed that this area be landscaped as an additional sitting area but is currently not used. Adjacent to this and within the turning circle is a landscaped sitting area. Figure 3 shows these areas.

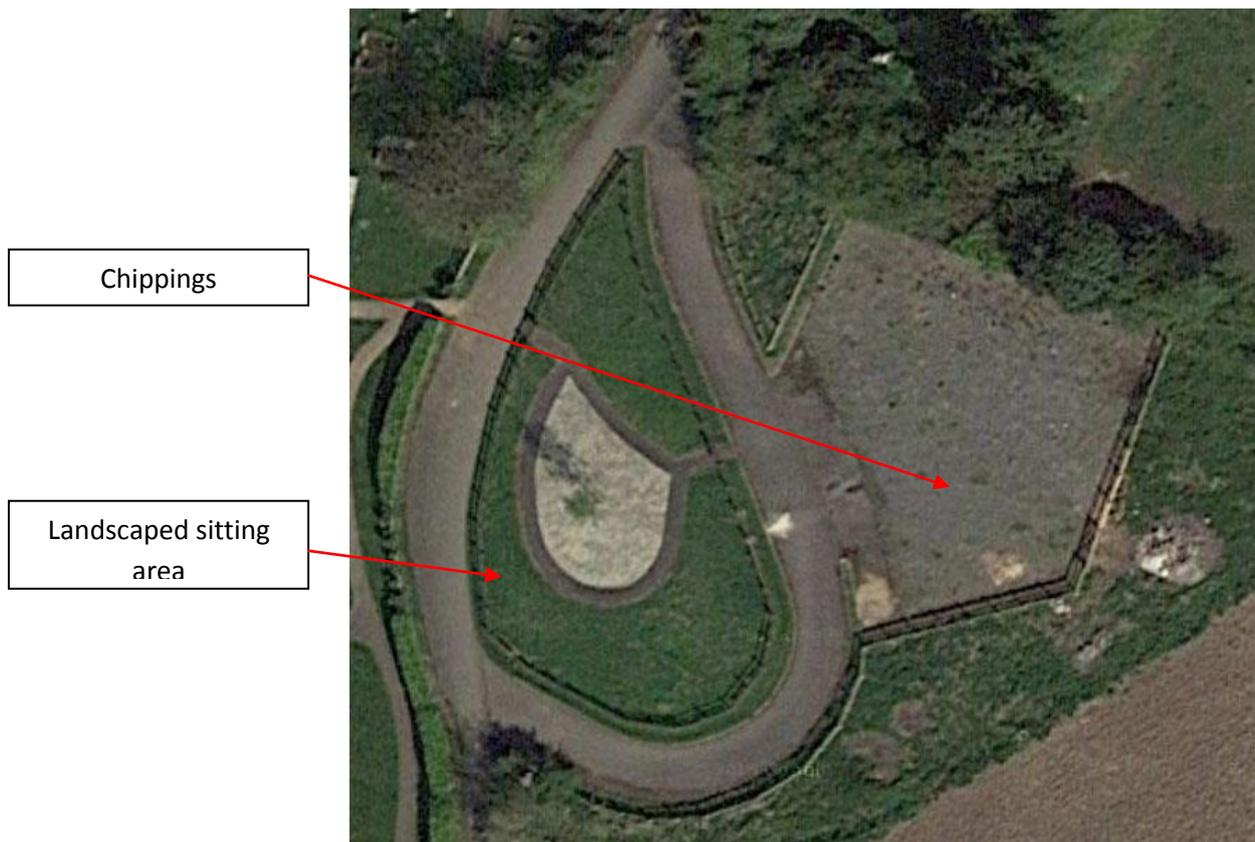


Figure 3: Sitting area

Hard standing with chippings

This area provides an interesting and potentially highly valuable habitat. The stone chippings limit nutrient availability so the area is colonised with fine grasses and small wildflowers. One species of wildflower was discovered that is rare in Leicestershire – Long-stalked Cranesbill *Geraneum columbinum*. It is also a rich area for ground dwelling invertebrates, such as ants and grasshoppers. A species list for this area is included in appendix 2.

8. It is recommended that rather than re-landscape the whole of this area, as much as possible is retained in its current form. A grass path could be constructed to lead to the seating benches. An interpretation sign could be provided to explain the desire to conserve the stone area as a wildlife habitat.
9. Some areas of stones have been sufficiently colonised to create a very short turf. If desired this 'greening' could be enhanced by spreading a thin layer (maximum one centimetre) of subsoil on the exposed stones.
10. The area of chippings to be conserved should be trimmed or mown annually in late summer and the cuttings removed.

Landscaped sitting area

This area consists of a central gravelled area with an outer ring of meadow grassland. The presence of species such as Corncockle *Agrostemma githago* and other species indicates that the area has been both planted with bulbs and sown with a wildflower mix. Whilst not particularly florally

diverse, the meadow does offer valuable habitat and a wide variety of invertebrates were observed. A brief species list is included in appendix 3.

11. It is recommended that the meadow be retained but managed differently. The area could be conventionally mown from August onwards but left unmown in the Spring and early Summer. Bulb plants will then appear and be followed by other meadow grassland species. The area should be strimmed in late July and the cuttings removed before regular mowing takes place.
12. A border strip of 60-100cm could be mown throughout the year along the path edge. This adds visual impact to the meadow grassland and reminds the visiting public that the meadow has been deliberately managed.

Natural Burials

The field to the east of the cemetery has been purchased with the intention of creating a natural burial area. The field is currently used for an arable crop and unmanaged areas at the field margins clearly indicate that soil is very rich in nutrients. This will present a management challenge when using the site for natural burials as it will lead to the dominance of aggressive grasses and plants, making visually attractive meadow creation very difficult. One solution is to turn the soil to a depth of 30cm or so to bury the nutrient rich top soil. Trees will thrive in this as their roots can easily access the nutrients. The lower fertility of the subsoil at the surface will also allow a species-diverse meadow grassland to thrive.

NatureSpot website

Blaby Cemetery has been set up as a 'Wild place' on the NatureSpot website to provide an ongoing and dynamic wildlife profile of site. NatureSpot is a registered charity that promotes the wildlife of Leicestershire and Rutland and encourages the public to submit wildlife sightings as a citizen science initiative in order to map local biodiversity. Any future wildlife records for the cemetery will be automatically added to the pages for this site.

<http://www.naturespot.org.uk/wild-place/blaby-cemetery>

Images of many of the flora and fauna found at the cemetery during this survey can be viewed on these pages.

Appendix 1 – Species found in the old cemetery

Taxon Group	Latin Name	Common Name
Bees, Wasps, Ants	<i>Bombus hypnorum</i>	Tree Bumblebee
Bees, Wasps, Ants	<i>Bombus lapidarius</i>	Red-tailed Bumblebee
Beetles	<i>Pyrochroa serraticornis</i>	Cardinal Beetle
Beetles	<i>Adalia bipunctata</i>	2 Spot Ladybird
Beetles	<i>Harmonia axyridis</i>	Harlequin Ladybird
Birds	<i>Picus viridis</i>	Green Woodpecker
Birds	<i>Fringilla coelebs</i>	Chaffinch
Birds	<i>Troglodytes troglodytes</i>	Wren
Birds	<i>Phylloscopus collybita</i>	Chiffchaff
Birds	<i>Pica pica</i>	Magpie
Birds	<i>Corvus corone</i>	Carrion Crow
Birds	<i>Columba palumbus</i>	Wood Pigeon
Bugs	<i>Philaenus spumarius</i>	Common Froghopper
Bugs	<i>Elasmucha grisea</i>	Parent Bug
Bugs	<i>Deraeocoris flavilinea</i>	
Butterflies	<i>Pararge aegeria</i>	Speckled Wood
Flies, Gnats and Midges	<i>Phytomyza ilicis</i>	Holly leaf miner
Flies, Gnats and Midges	<i>Scathophaga stercoraria</i>	Yellow Dung Fly
Flies, Gnats and Midges	<i>Musca autumnalis</i>	Face Fly
Flies, Gnats and Midges	<i>Chromatomyia atricornis</i>	
Flies, Gnats and Midges	<i>Chloromyia formosa</i>	Broad Centurian
Grasses, Rushes & Sedges	<i>Arrhenatherum elatius</i>	False Oat-grass
Grasses, Rushes & Sedges	<i>Holcus lanatus</i>	Yorkshire-fog
Grasses, Rushes & Sedges	<i>Dactylis glomerata</i>	Cock's-foot
Grasses, Rushes & Sedges	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass
Grasses, Rushes & Sedges	<i>Arrhenatherum elatius</i>	False Oat-grass
Grasshoppers & Crickets	<i>Leptophyes punctatissima</i>	Speckled Bush-cricket
Hoverflies	<i>Episyrphus balteatus</i>	Marmalade Hoverfly
Hoverflies	<i>Volucella pellucens</i>	Pellucid Fly
Hoverflies	<i>Volucella bombylans</i>	
Hoverflies	<i>Sphaerophoria scripta</i>	Long Hoverfly
Hoverflies	<i>Cheilosia illustrata</i>	
Hoverflies	<i>Eupeodes corollae</i>	Migrant Hoverfly
Hoverflies	<i>Helophilus pendulus</i>	The Footballer
Hoverflies	<i>Melangyna labiatarum</i>	
Hoverflies	<i>Chrysotoxum bicinctum</i>	
Mammals	<i>Talpa europaea</i>	Mole
Mammals	<i>Oryctolagus cuniculus</i>	Rabbit
Mosses & Liverworts	<i>Brachythecium rutabulum</i>	Rough-stalked Feather-moss

Mosses & Liverworts	<i>Kindbergia praelonga</i>	Common Feather-moss
Mosses & Liverworts	<i>Rhytidiadelphus squarrosus</i>	Springy Turf-moss
Moths	<i>Camptogramma bilineata</i>	Yellow Shell
Moths	<i>Xanthorhoe montanata</i>	Silver-ground Carpet
Moths	<i>Anania hortulata</i>	Small Magpie
Sawflies	<i>Rhogogaster viridis</i>	
Sawflies	<i>Tenthredopsis coquebertii</i>	
Slime Moulds	<i>Mucilago crustacea</i>	Dog Sick Slime Mould
Slugs & Snails	<i>Monacha cantiana</i>	Kentish Garden Snail
Slugs & Snails	<i>Oxychilus alliarius</i>	Garlic Snail
Slugs & Snails	<i>Arion subfuscus</i>	Dusky Slug
Slugs & Snails	<i>Arion distinctus</i>	
Spiders, Harvestmen & Mites	<i>Enoplognatha ovata</i>	Comb-footed Spider
Spiders, Harvestmen & Mites	<i>Amaurobius similis</i>	Lace-weaver Spider
Spiders, Harvestmen & Mites	<i>Aceria cephalonea</i>	
Trees, Shrubs & Climbers	<i>Sambucus nigra</i>	Elder
Trees, Shrubs & Climbers	<i>Betula pendula</i>	Silver Birch
Trees, Shrubs & Climbers	<i>Rubus fruticosus</i> agg.	Bramble agg.
Trees, Shrubs & Climbers	<i>Ilex aquifolium</i>	Holly
Trees, Shrubs & Climbers	<i>Hedera helix</i>	Ivy
Trees, Shrubs & Climbers	<i>Crataegus monogyna</i>	Hawthorn
Trees, Shrubs & Climbers	<i>Chamaecyparis lawsoniana</i>	Lawson's Cypress
Trees, Shrubs & Climbers	<i>Symphoricarpos albus</i>	Snowberry
Trees, Shrubs & Climbers	<i>Acer campestre</i>	Field Maple
Trees, Shrubs & Climbers	<i>Corylus avellana</i>	Hazel
Trees, Shrubs & Climbers	<i>Quercus robur</i>	Pedunculate Oak
Trees, Shrubs & Climbers	<i>Fraxinus excelsior</i>	Ash
Trees, Shrubs & Climbers	<i>Sorbus aria</i> agg.	Common Whitebeam agg.
Trees, Shrubs & Climbers	<i>Acer pseudoplatanus</i>	Sycamore
Trees, Shrubs & Climbers	<i>Philadelphus</i> agg.	Mock-orange
Wildflowers	<i>Heracleum sphondylium</i>	Hogweed
Wildflowers	<i>Vicia sativa</i>	Common Vetch
Wildflowers	<i>Urtica dioica</i>	Common Nettle
Wildflowers	<i>Cirsium vulgare</i>	Spear Thistle
Wildflowers	<i>Veronica chamaedrys</i>	Germander Speedwell
Wildflowers	<i>Centaurea nigra</i>	Common Knapweed
Wildflowers	<i>Veronica arvensis</i>	Wall Speedwell
Wildflowers	<i>Epilobium montanum</i>	Broad-leaved Willowherb
Wildflowers	<i>Sonchus asper</i>	Prickly Sow-thistle
Wildflowers	<i>Alliaria petiolata</i>	Garlic Mustard
Wildflowers	<i>Geum urbanum</i>	Wood Avens
Wildflowers	<i>Glechoma hederacea</i>	Ground-ivy
Wildflowers	<i>Scorzonerooides autumnalis</i>	Autumn Hawkbit

Wildflowers	<i>Stellaria media</i>	Common Chickweed
Wildflowers	<i>Taraxacum officinale</i> agg.	Dandelion agg.
Wildflowers	<i>Lathyrus pratensis</i>	Meadow Vetchling
Wildflowers	<i>Rumex acetosa</i>	Common Sorrel
Wildflowers	<i>Calystegia sepium</i>	Hedge Bindweed
Wildflowers	<i>Galium verum</i>	Lady's Bedstraw
Wildflowers	<i>Bryonia dioica</i>	White Bryony
Wildflowers	<i>Anthriscus sylvestris</i>	Cow Parsley
Wildflowers	<i>Veronica chamaedrys</i>	Germander Speedwell
Wildflowers	<i>Sedum acre</i>	Biting Stonecrop
Woodlice, Crustaceans	<i>Armadillidium vulgare</i>	Pill Woodlouse

Appendix 2 – Species found in the chippings area

Taxon Group	Latin	Common
Algae, Bacteria, Virus	Nostoc commune	
Bees, Wasps, Ants	Lasius niger	Small Black Ant
Bees, Wasps, Ants	Bombus pascuorum	Common Carder Bumblebee
Beetles	Coccinella septempunctata	7 Spot Ladybird
Bugs	Philaenus spumarius	Common Froghopper
Bugs	Aphrophora alni	Alder Spittlebug
Butterflies	Ochlodes sylvanus	Large Skipper
Flies, Gnats and Midges	Urophora stylata	
Grasses, Rushes & Sedges	Holcus lanatus	Yorkshire-fog
Grasshoppers & Crickets	Omocestus viridulus	Common Green Grasshopper
Mosses & Liverworts	Bryum capillare	Capillary Thread-moss
Mosses & Liverworts	Bryum argenteum	Silver-moss
Slugs & Snails	Monacha cantiana	Kentish Garden Snail
Trees, Shrubs & Climbers	Rubus fruticosus agg.	Bramble agg.
Trees, Shrubs & Climbers	Rosa arvensis	Field-rose
Trees, Shrubs & Climbers	Philadelphus agg.	Mock-orange
Wildflowers	Senecio jacobaea	Common Ragwort
Wildflowers	Urtica dioica	Common Nettle
Wildflowers	Cirsium arvense	Creeping Thistle
Wildflowers	Myosotis arvensis	Field Forget-me-not
Wildflowers	Chamerion angustifolium	Rosebay Willowherb
Wildflowers	Epilobium montanum	Broad-leaved Willowherb
Wildflowers	Plantago major	Greater Plantain
Wildflowers	Epilobium parviflorum	Hoary Willowherb
Wildflowers	Trifolium dubium	Lesser Trefoil
Wildflowers	Epilobium ciliatum	American Willowherb
Wildflowers	Taraxacum officinale agg.	Dandelion agg.
Wildflowers	Trifolium repens	White Clover
Wildflowers	Prunella vulgaris	Selfheal
Wildflowers	Veronica arvensis	Wall Speedwell
Wildflowers	Scorzoneroideis autumnalis	Autumn Hawkbit
Wildflowers	Cirsium vulgare	Spear Thistle
Wildflowers	Geranium molle	Dove's-foot Crane's-bill
Wildflowers	Ranunculus repens	Creeping Buttercup
Wildflowers	Galium aparine	Cleavers
Wildflowers	Geum urbanum	Wood Avens
Wildflowers	Medicago lupulina	Black Medick
Wildflowers	Sonchus asper	Prickly Sow-thistle
Wildflowers	Cerastium fontanum	Common Mouse-ear

Wildflowers	<i>Viola odorata</i>	Sweet Violet
Wildflowers	<i>Viola arvensis</i>	Field Pansy
Wildflowers	<i>Geranium dissectum</i>	Cut-leaved Crane's-bill
Woodlice, Crustaceans	<i>Armadillidium vulgare</i>	Pill Woodlouse

Appendix 3 – Species found in the landscaped sitting area

Taxon Group	Latin	Common
Grasses, Rushes & Sedges	Holcus lanatus	Yorkshire-fog
Wildflowers	Agrostemma githago	Corncockle
Wildflowers	Senecio jacobaea	Common Ragwort
Wildflowers	Ranunculus repens	Creeping Buttercup
Wildflowers	Cirsium vulgare	Spear Thistle
Wildflowers	Cerastium fontanum	Common Mouse-ear
Wildflowers	Scorzoneroides autumnalis	Autumn Hawkbit