Wessex Ecological Consultancy

28 Egerton Road, Bishopston, Bristol BS7 8HL
Tel: 0117 9441034
Email: dawn or rupert@wessexeco.co.uk
Web: wessexeco.co.uk



THORNBURY CEMETERY

BIODIVERSITY AUDIT

SUMMER 2026

For

THORNBURY TOWN COUNCIL

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BIODIVERSITY AUDIT

1 INTRODUCTION

This report was commissioned by Thornbury Town Council with the aim of identifying features of biodiversity interest at Thornbury Cemetery; of assessing the impacts of changes to management made since a similar survey was carried out in 2022; and of identifying further measures by which the site's biodiversity interest can be enhanced.

Site surveys were carried out on 21st May and 9th June 2026. They covered vegetation types and plant species, insects and birds; potential for other groups was assessed.

2 SITE DESCRIPTION

2.1 Summary

The cemetery consists largely of mown grassland between graves; the composition of the grassland varies significantly between different areas of the site, with species-rich grassland concentrated in the western parts of the site and less diverse areas to the east. There are scattered trees throughout the cemetery and hedges on some of the boundaries. A former field to the north-west of the cemetery was also included in the survey.

The cemetery is on the edge of open countryside just to the north-west of Thornbury.

2.2 Vegetation

The areas described below are shown on the attached map. In 2022 almost all of the grassland in the cemetery was close mown; in 2026, in line with recommendations made in the 2022 report, several areas had been allowed to grow taller.

Area 1

The 2022 description was as follows: "*The grassland between the graves is dominated red fescue (Festuca rubra) with other grass species including common bent (Agrostis capillaris) and yellow-oat grass (Trisetum flavescens). Herb species make up a high proportion of the sward, with species present including mouse-ear hawkweed (Pilosella officinarum), lesser hawkbit (Leontodon saxatils), rough hawkbit (Leontodon hispidus), bird's-foot trefoil (Lotus corniculatus), meadow vetchling (Lathyrus pratensis), hedge bedstraw (Galium album) and glaucous sedge (Carex flacca). The mosses Rhytidiadelphus squarrosus and Kindbergia praelonga are locally frequent.*"

The sward is now mown less tightly, allowing low-growing plants to flower. Of the species listed above only hedge bedstraw was not found in 2026 and a number of additional species were recorded. These include quaking grass (*Briza media*), spring sedge (*Carex caryophyllea*), field woodrush (*Luzula campestris*), pignut (*Conopdium majus*) and greater bird's-foot trefoil (*Lotus pedunculatus*).



Flowering sward in area 1, including bird's-foot trefoil, quaking grass and ox-eye daisy.

Mature and semi-mature trees, most of them conifers are scattered through the area.

Gravestones in the area support a reasonable range of lichens, which include *Parmelia saxatilis, Melanelixia fuliginosa, Tephromela atra* and *Acarospora fuscata*.

Disturbed ground on graves and elsewhere in the area supports a variety of ruderal species of plant, which include many-seeded goosefoot (*Lipandra polysperma*) and broad-leaved warty spurge (*Euphorbia platyphyllos*). More established vegetation on graves includes woodland species such as common dog violet (*Viola riviniana*), wild strawberry (*Fragaria vesca*) and barren strawberry (*Potentilla sterilis*).

Area 2

This area was described in 2022 as: "*less diverse and perennial rye-grass (Lolium perenne) frequent. Herb species include yarrow (Achillea millefolium), ribwort plantain (Plantago lanceolata) and autumnal hawkbit (Scorzoneroides autumnalis).*" Changes here since then are less marked than at area 1, but bird's-foot trefoil has colonised the area.

Area 3

The sward across this area is less diverse than in area 1 but more diverse than in area 2. Herb species recorded in this area in 2022 included mouse-ear hawkweed, lesser hawkbit, common catsear (*Hypochaeris radicata*) and red clover (*Trifolium pratense*). These species were still present in 2026, when bird's-foot trefoil and germander speedwell (*Veronica chamaedrys*) were also present.

The hedges and trees around the cemetery remain as described in 2022:

Area 4
This is a clump of horse chestnut trees, with a single pedunculate oak.

Area 5
This area comprises a larger clump of trees, which include copper beech (*Fagus sylvatica*) and red oak (*Quercus ruber*).

Area 6
There is a well-developed hedge on the north-western boundary of the site, which includes two mature pedunculate oak (*Quercus robur*) trees, but woody species are otherwise limited to hawthorn (*Crataegus monogyna*) and ash (*Fraxinus excelsior*).

Area 7
The northern boundary of the cemetery has a low hedge of English elm (*Ulmus procera*), hawthorn, dogwood (*Cornus sanguinea*) and elder (*Sambucus nigra*). Trees, which include Italian alder (*Alnus cordata*), rowan (*Sorbus aucuparia*) and horse chestnut (*Aesculus hippocastanum*), have been planted adjacent to the hedge.

Area 8
The eastern boundary of the cemetery has a tall line of trees, which include horse chestnut, ornamental cherry (*Prunus mahaleb*) and pedunculate oak, together with various conifers. An associated hedge has English elm, hawthorn, hazel (*Corylus avellana*) and dog rose (*Rosa canina*).

Extension Area
The proposed extension area was surveyed in 2026. It had largely been mown before the survey was carried out, but sufficient unmown areas remained to allow a survey and regrowth was strong in some parts of the area.

The following species were recorded in the main part of the area:

Grasses		
Agrostis stolonifera	Creeping bent	RLF
Alopecurus geniculatus	Marsh foxtail	R
Alopecurus pratensis	Meadow foxtail	O
Anthoxanthum odoratum	Sweet vernal grass	O
Arrhenatherum elatius	False oat-grass	RLF
Dactylis glomerata	Cocksfoot	O
Festuca rubra	Red fescue	O
Holcus lanatus	Yorkshire fog	OLF
Lolium perenne	Perennial rye-grass	F
Poa trivialis	Rough-stalked meadow-grass	OLF
Herbs		
Achillea millefolium	Yarrow	O
Bellis perennis	Common daisy	R
Carex hirta	Hairy sedge	R
Cerastium fontanum	Common mouse-ear	R

Cirsium arvense	Creeping thistle	RLF
Cirsium vulgare	Spear thistle	R
Conopodium majus	Pignut	R
Filipendula ulmaria	Meadow-sweet	RLF
Geranium dissectum	Cut-leaved cranesbill	R
Heracleum sphondylium	Hogweed	O
Lathyrus pratensis	Meadow vetchling	RLF
Lotus pedunculatus	Greater bird's-foot trefoil	R
Plantago lanceolata	Ribwort plantain	O
Potentilla reptans	Creeping cinquefoil	O
Ranunculus acris	Meadow buttercup	O
Ranunculus bulbosus	Bulbous buttercup	R
Ranunculus repens	Creeping buttercup	RLF
Rumex acetosa	Common sorrel	R
Sonchus apser	Prickly sow-thistle	R
Taraxacum vulgare agg	Dandelion	R
Trifolium pratense	Red clover	R
Trifolium repens	White clover	O

Frequency codes: D – dominant; A – abundant; F – frequent; O – occasional; R – rare; L – locally

A strip of tall grassland along the area's northern boundary has some additional species, which include tall fescue (*Schedonorus arundinaceus*), common knapweed (*Centaurea nigra*) and tufted vetch (*Vicia cracca*). This strip is locally wet, and additional species in wet areas include square-stemmed St John's wort (*Hypericum tetrapterum*), hemlock water dropwort (*Oenanthe crocata*) and purple loosestrife (*Lythrum salicaria*). The ground is also wet in the south-western part of the area, where flote-grass (*Glyceria plicata*) is locally frequent.

The hedge that crosses part of the area is tall and wide, consisting of hawthorn, hazel, dogwood, ash and field maple (*Acer campestre*). The hedge's ground flora includes hedge garlic (*Alliaria petiolata*).

2.3 Fauna

Hedgehog droppings were seen in 2026.

The following bird species were recorded:

2022
Blue tit, chiffchaff, goldcrest, goldfinch, great tit, long-tailed tit, robin, wood pigeon and wren.

2026
Blackbird, blue tit, chiffchaff, goldcrest, goldfinch, great tit, greenfinch, jackdaw, robin, starling, swallow, wood pigeon and wren.

The insect species recorded were:

2022: Rush veneer and *Agriphila tristella* moths; buff-tailed bumblebee and *Lasioglossum calceatum* bee; and *Syrphus vitripennis* fly.

2026:

Area 1 Small tortoiseshell and meadow brown butterflies; garden, buff-tailed and red-tailed bumblebees and *Lasioglossum sp* bee; common earwig; *Glyphipterix* simpliciella and *Glyphipterix fuscoviridella* moths; *Spahaerophoria scripta* and *Eupeodes latifasciatus* flies; *Malachus bipustulatus, Trichosirocalus troglodytes, Mecinus pascuorum* beetles; *Lygus rugulipennis* bug

Area 2 Roesel's bush-cricket, meadow grasshopper.

Area 5 *Argyresthia trifasciata* moth; *Anthribus fasciatus* beetle

Area 6 Dark bush-cricket; early bumble-bee; *Curculio glandium, Grammoptera ruficornis* beetles.

Area 9 Red admiral butterfly; meadow grasshopper; *Andrena haemorrhoa* bee; seven-spot ladybird, *Rhinocyllus conicus* and *Oedemera nobilis* beetles;

Extension area: Red admiral butterfly; seven spot ladybird, *Rhinocyllus conicus* and *Oedemera nobilis* beetles.

2.4 Amenity

The cemetery remains in active use and the maintenance of a suitable environment for funeral attendees and for visitors to graves is a prime consideration in site management.

3 EVALUATION

3.1 Introduction

Various criteria are used in assessing the biodiversity value of sites. These include rarity, in terms of either habitats or species, which can be viewed in a range of contexts from international to local and also degree of threat: some species remain widespread but are of conservation concern because their populations have declined rapidly. Some habitats take many centuries, or require very specialised conditions, to develop their full diversity and those that cannot be recreated are more highly valued than those that can be readily created. The extent and connectivity of habitats is of importance, since many species rely on large areas of habitat or on having access to different habitat types at different stages in their life cycle. This can be particularly important in urban areas, where species can be lost from small and isolated areas of habitat, even if these remain in good condition. Conversely, sites can have value in a wider context if, for example, they allow wildlife to colonise gardens and other sites in the surrounding area or if they allow wildlife to move into and across otherwise inhospitable areas. In accessible urban areas the public appeal or visibility of wildlife is also a factor in contributing to public enjoyment and wellbeing.

Guidance on site evaluation is given in various publications, including the South Gloucestershire Biodiversity Action Plan (BAP) and the 2006 Natural Environment and Rural Communities (NERC) Act, and has been followed here.

3.2 Habitats

The grassland across the western part of the cemetery, which also has the oldest tombs, is moderately diverse. The plants present here include several species that are indicative of unimproved grassland, a habitat type that has undergone serious declines, largely as a result of agricultural intensification and is recognised as a priority for conservation in BAPs and the NERC Act. Table 1 below compares the diversity of indicator species of unimproved grassland across the two surveys.

	Area 1		Area 2		Area 3	
	2022	2026	2022	2026	2022	2026
Bugle		X				
Common bird's-foot trefoil	X	X		X		X
Field woodrush		X				
Germander speedwell		X				X
Glaucous sedge	X	X				
Greater bird's-foot trefoil		X				
Hedge bedstraw	X					
Lesser hawkbit	X	X			X	X
Meadow fescue		X				
Meadow vetchling	X	X				
Mouse-ear hawkweed	X	X			X	X
Ox-eye daisy	X	X				
Pignut		X				
Quaking grass		X				
Rough hawkbit	X	X				
Spring sedge		X				
Yellow oat-grass	X	X				
Number of indicator species	9	16	0	1	2	4

The diversity of indicator species has risen markedly since 2022. This may in part be because plants are easier to detect in the taller swards than they were in the close mown turf present in 2022 but may also represent a genuine increase in diversity. The species recorded in 2026 include three – quaking grass, meadow fescue and spring sedge – that are included in the Great Britain Red List of endangered vascular plants. None of them is rare, but they are included because they have undergone dramatic declines in range over the last 25 years, and their presence is another indication of the biodiversity value of the cemetery.

Gravestones within the cemetery support a reasonable quantity and diversity of lichens. The BRERC (Bristol Regional Environmental Records Centre) has very few records of some of the species recorded – with none in South Gloucestershire for *Melanelixia fuliginosa, Tephromela atra* and *Acarospora fuscata* – but this may be due

to under-recording. A full lichen survey would probably reveal species of interest – there is a good range of monuments here and air quality is reasonably high.

Few insects were recorded in 2022, when the grassland was cut short, but a greater diversity was recorded in the taller grassland present in 2026. Most of the species found are widespread, but *Mecinus pascuorum,* a weevil associated with ribwort plantain, is known from only two other sites in South Gloucestershire. *Rhincocyllus conicus,* which is associated with thistles, is known from only one other site in South Gloucestershire. Larvae of the micromoth *Glyphipterix fuscoviridella* feed on field woodrush and it is restricted to species-rich grasslands.

The western part of the cemetery is of nature conservation value in a South Gloucestershire context, and this value has risen significantly since 2022.

The grassland at area 2, across much of the eastern part of the cemetery, which has recent burials and is in active use, has very few plant species associated with unimproved grassland, but its value has risen slightly.

This area is of nature conservation value in a local context.

Area 3, in the south-western part of the cemetery, supports some species of unimproved grassland, notably mouse-ear hawkweed, and has become more diverse since 2022.

This area is of nature conservation value in a local context.

The oaks in the hedge at area 4 are the most valuable of the trees and shrubs on the site. The hedges are not outstandingly diverse and their potential for birds and other wildlife is limited by their low height and narrow width. The trees within the cemetery are largely non-native, but they provide habitat for birds.

A moderate diversity of insects associated with trees and shrubs was recorded in the cemetery. The least common is the weevil *Anthribus fasciatus,* which has not previously been recorded from South Gloucestershire and has been recorded from only two other sites in the former County of Avon and one other site in Gloucestershire. It is a predator of scale insects.



Anthribus fasciatus

The acorn weevil, *Curculio glandium,* is widely distributed across the southern part of the former County of Avon but had not been recorded previously in South Gloucestershire. It was found in oak trees on the western boundary of the cemetery.



Curculio glandium

The trees and shrubs across the cemetery are of nature conservation value in a South Gloucestershire context.

3.3 Protected and Invasive Species

No sign of any protected species recorded was seen.

Bats are likely to use habitats across the cemetery for foraging.

The cemetery lacks habitat suitable for any other protected species.

No scheduled invasive species were recorded on the site.

3.4 Summary

Area	Feature	Scale of Interest	Features of Interest
1	Grassland	South Gloucestershire context	Diverse vegetation, including indicator species of unimproved grassland
1	Monuments	Local context, possibly greater	Lichen populations
2	Grassland	Local context	Small populations of unimproved grassland indicator species
3	Grassland	Local context	Small populations of unimproved grassland indicator species
6	Oak trees	Local context	
All	Trees	South Gloucestershire context	Populations of locally rare insects.

3.5 Trends

As outlined above, the value of several areas of the cemetery for both plants and insects has increased since 2022, with notable new records of Red List plant species and locally rare insects. The diversity of bird species recorded gives an indication of the overall biodiversity value of the cemetery. The number of species recorded has risen from nine in 2022 to 13 in 2026. The presence of swallow and starling in 2026 is noteworthy. Populations of both species have declined sharply, both nationally and locally. Both feed on invertebrates, their presence reflecting the increased value of the cemetery since the management regime was modified.

3.6 Extension Area

The grassland in this area is moderately diverse and it supports several plant species that are indicative of unimproved grassland: pignut, meadow vetchling and greater bird's-foot trefoil, with common knapweed and tufted vetch in the strip along the northern edge of the area. None of these species is uncommon, but their presence indicates that the grassland here is semi-improved, and therefore of some biodiversity value. Survey before the area is mown might reveal the presence of additional species. The presence of wetland species adds further diversity and biodiversity value to the area. It is not, however, as diverse as area 1 of the cemetery and lacks the Red List species present in that area.

The extension area is of nature conservation value in a local context.

4 MANAGEMENT

4.1 Aims

To maximise the biodiversity interest of the site whilst maintaining its role as a cemetery

4.2 Objectives

To maintain species-rich grassland on the site.

To maintain graves and monuments in a suitable condition for lichen growth.

To enhance site boundaries.

4.3 Constraints

The main constraint on management for biodiversity here is the need to ensure the good condition of the monuments. For these and general amenity reasons it is appropriate to maintain the grassland around most of the site in a fairly formal condition.

4.4 Rationale

The cemetery is currently of high interest for biodiversity and amendments to the mowing regime have increased the level of interest. Further significant changes to existing management practices are not recommended.

The change to a less intensive mowing regime across area 1 and the retention of areas of tall grassland elsewhere have been successful and should be continued.



The mowing regime is maintaining a formal appearance and protecting monuments, whilst allowing plants to flower.

The cemetery has a good balance of trees and open habitats, and this should be maintained – additional tree planting away from the boundaries is not recommended but any lost trees should be replaced.

4.5 Management Proposals

1 No fertilisers or herbicides of any kind should be used on any area of grassland.

2 Continue the current grassland mowing regime across the cemetery.

3 Continue to keep monuments clear of scrub and ivy.

4 Allow the hedges on the north-western and northern boundaries of the cemetery to grow taller.

5 Plant trees alongside hedges as indicated on the map below, using the following species:

Field maple	*Acer campestre*
Silver birch	*Betula pendula*
Crab apple	*Malus sylvestris*
Rowan	*Sorbus aucuparia*

6 Fit bird and bat boxes to trees. Boxes can be either purchased commercially or made by the local community or schools.

7 Retain any dead wood as a habitat feature, place in partial shade on the eastern boundary of the cemetery. Logs should be kept in as large sections as possible, because this makes them difficult to move and also provides optimal habitat for wildlife.

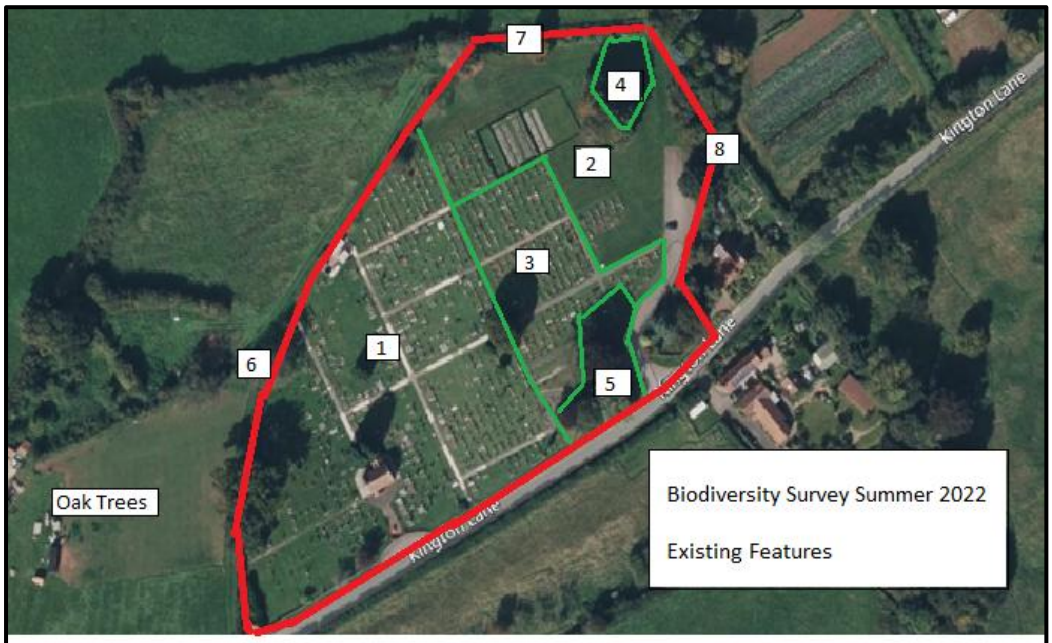
4.6 Extension Area

The proposal for this area is to develop it as a memorial woodland, since drainage patterns across the area do not allow for burials. The impacts of this proposal on the existing biodiversity interest will depend on the density of tree planting. If the tree canopy becomes continuous then much of the existing grassland flora will be shaded out and there will be some adverse impact. However, if the canopy is reasonably open, allowing grassland to remain between and underneath the trees, all or most of the plants that are currently present should survive. Experience at other sites, notably Memorial Woodlands near Itchington, has shown that widely spaced trees planted over grassland can develop significant biodiversity interest over a relatively short time, supporting species of insect and fungus that are absent from more closed woodland. However, over-dense planting carried out in parts of Memorial Woodlands during the site's early years have led to management problems as the trees have grown and become over-crowded, exacerbated by sensitivities over carrying out works to memorial trees.

It is recommended that trees are planted sparsely, so that grassland persists beneath the canopy, and that the grassland beneath the trees is managed using a hay cut, with the arisings being gathered and removed.

4.6 Work Planner

Task	Year 1	Year 2	Year 3	Year 4	Year 5
Continue current grass mowing regime	Throughout	Throughout	Throughout	Throughout	Throughout
Keep monuments clear of ivy and scrub	As necessary	As necessary	As necessary	As necessary	As necessary
Mow grassland between and underneath the trees in the memorial woodland. Gather and remove arisings. Repeat later in the year if necessary.	July	July	July	July	July
Fit bird and bat boxes to trees in area 4	January	January			
Check bird and bat boxes, and replace as necessary			January	January	January
Maintain bug hotel	As necessary	As necessary	As necessary	As necessary	As necessary
Create dead wood piles in area 4	As dead wood becomes available	As dead wood becomes available	As dead wood becomes available	As dead wood becomes available	As dead wood becomes available



1	Species-rich grassland
2	Species-poor grassland
3	Moderately species-rich grassland
4	Tree clump
5	Tree clump
6	Hedge with mature trees
7	Hedge
8	Tree line with hedge