



Allington Millennium Green, Maidstone, Kent

Wildlife Survey



Kent Wildlife Trust Consultancy

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1 INTRODUCTION

1.1 Background

Kent Wildlife Trust was commissioned by Allington Millennium Green Trust to carry out a wildlife survey of Allington Millennium Green.

The objective of the survey was to provide a baseline record of the wildlife interest on the site and to make recommendations for a monitoring regime that could be undertaken mainly by local volunteers.

1.2 Survey Location / Area

Allington Millennium Green is located at Cloudberry Close, Allington, Maidstone, Kent, ME16 0LY. The OS grid reference to the centre of the survey area is TQ748565.

The Green covers approximately 0.9ha. It is bounded to the north-western by Buckland Lane, to the south-western by the main A20 London Road, and to the north-eastern by Cloudberry Close. The south-eastern boundary is formed by residential properties.

The Green is dominated by grassland, with areas of wildflower meadow as well as recreational grassland. A small apple / cherry orchard and a cobnut plantation have been planted in the north-western and south-eastern areas of the site, with trees and shrubs and a hedgerow present along the north-western, south-western and south-eastern boundaries. A paved sensory garden in the centre of the site has been planted with a variety of herbs.

An aerial photographic extract map¹ showing the extent and boundaries of the site is included at Figure 1.

1.3 Limitations

This report records the flora and fauna evident during a single visit undertaken in July 2016. It does not record any species that may appear on the site at other times of the year and, as such, were not evident during this survey.

¹ Google Earth. Date of aerial photograph 20 April 2015

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Figure 1: Allington Millennium Green. Aerial photographic extract showing site location and boundaries (outlined in red). *Representation only. Do not scale*

Allington Millennium Green.

Wildlife Survey

2 METHODOLOGY

2.1 Desktop Study

A full data search was carried out with Kent & Medway Biological Records Centre ^{2,3}.

The data search provided information relating to the reported presence of:

- Designated nature conservation sites
 - Habitats of potentially high ecological importance and sensitivity
 - Protected species
 - Species of conservation concern
 - Kent Rare and Scarce species
 - Invasive non-native species

2.2 Site Visit

The site was visited on 5th July 2016 by Emma Ventham, formerly Green Infrastructure Officer at Kent Wildlife Trust. Weather conditions during the visit were windy and cloudy with spells of warm sunshine. Previous weather conditions had been unsettled with periods of very heavy rain.

During the survey all accessible areas of the site were walked and notes made of the dominant habitats and species observed.

During the survey, Emma spoke to one of the local residents who volunteers at the site and he provided her with some additional information relating to the compost area in the orchard which has been included within this report. She also spoke to another local resident who said how much they liked the area and the way that it looked after.

² KMBRC datasearch requested by Dr Brian White, with results forwarded to Kent Wildlife Trust for consideration within this report

³ Please note that absence of records should not be taken as confirmation that a species is absent from the search area.



Figure 2: Allington Millennium Green. Aerial photographic extract showing compartments (outlined in yellow). The yellow letters are used for identification of compartments within the main text. *Representation only. Do not scale*

3 RESULTS

3.1 Desktop Study

3.1.1 Designated Nature Conservation Sites

Allington Millennium Green is not covered by any nature conservation designations and there are no designated nature conservation areas occurring within a one-kilometre radius of the site.

There is one Regionally Important Geological Site (RIGS) identified approximately 625m to the south of the Green. This is Bensted's (or Iguanodon) Quarry, which is considered to be an important site in the history of geology / palaeontology on an international scale for the discovery, in 1834, of the earliest known Ornithischian dinosaur, the Maidstone Iguanodon⁴.

There is one block of ancient woodland, Palace Wood, located approximately 680m to the west of the Green at OS central grid reference TQ740563. Ancient woodland in England is defined as an area that has been wooded continuously since at least 1600 AD. It is considered to be of prime ecological and landscape importance, providing a vital part of a rich and diverse countryside.⁵

3.1.2 Species

The data search information provided by the Kent and Medway Biological Records Centre (ENQ_16_196), highlights the presence of a number of notable species within a onekilometre radius of Allington Millennium Green. The results are summarised in Table 1 below^{6 78910}:

Table 1: Summary of species recorded within search area

Group	Species	Protection / Designation
Amphibians	Common frog, common toad, smooth newt, palmate newt	Common toad is a S41 Species of Principal Importance in England (formerly UKBAP priority species) ⁸
Reptiles	Slow-worm, grass snake	Slow-worm & grass snake are protected against killing / injuring under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). They are also S41 Species of Principal Conservation Importance in England (formerly UKBAP priority species) ⁹

⁴ Further information about the quarry is available from GeoConservation Kent at http://www.kentrigs.org.uk/index.php?option=com_content&view=article&id=15&Itemid=21

⁵ Further information about ancient woodland is available at http://www.naturalengland.org.uk/Images/ancient-woodlandstanding-advice_tcm6-37627.pdf

⁶ The full data set is held by Dr Brian White, Chairman of the Board of Directors of Allington Millennium Green Limited

⁷ Summary includes records post-2000, that are protected under WCA or European Protected Species, listed as S41 Species (formerly UKBAP priority species), nationally rare or scarce or county important. In addition, the bird summary is restricted to confirmed breeding terrestrial species

⁸ Further information about S41 species is available at <https://www.google.co.uk/webhp?sourceid=chromeinstant&ion=1&espy=2&ie=UTF-8#q=S41+species>

⁹ Further information about reptiles (and amphibians) and the law is available at <http://naturenet.net/law/herps.html>

¹⁰ Further information about Birds and the law is available at <http://naturenet.net/law/birds.html>

Birds	Records of 59 confirmed breeding species, including a number of S41 species such as lesser spotted woodpecker, dunnoek, song thrush, spotted flycatcher, starling, house sparrow, starling, house	All species of bird whilst actively nesting are afforded legal protection under the Wildlife & Countryside Act 1981 (as amended) and special penalties are available for offences related to birds listed on Schedule 1 ¹⁰
	sparrow, linnet, bullfinch. Common birds recorded which may frequent habitats such as those found at Allington Millennium Green include wood pigeons, collared dove, blackbird, great spotted woodpecker, goldfinch, greenfinch, chaffinch, great tit, blue tit, coal tit, long-tailed tit, robin	
Bats	Ten species of bats within the search area, including Records of eight bat roosts within 1km radius.	All species of bat are afforded full legal protection under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). They are also listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2010 and are therefore a "European Protected Species" (EPS)¹¹. Some species of bats (noctule, soprano pipistrelle, brown long-eared bat, barbastelle) are also listed as species of principal conservation importance. The legislation makes it a criminal offence to: • Deliberately capture, injure or kill a bat; • Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats; • Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time); • Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat; • Intentionally or recklessly obstruct access to a bat roost.
Mammals	Common species which may occur in habitats such as those found at Allington Millennium Green included records of badger, hedgehog, common shrew, weasel and stoat	The Protection of Badgers Act 1992 was introduced in recognition of the additional threats that badgers face from illegal badger digging and baiting. Under the Act, it is an offence inter alia to: • Wilfully kill, injure or take a badger, or to attempt to do so; • Cruelly ill-treat a badger; or Intentionally or recklessly interfere with a badger sett by (a) damaging a sett or any part of one; (b) destroying a sett; (c) obstructing access to or any entrance of a sett; (d) causing a dog to enter a sett; or (e) disturbing a badger when it is occupying a sett. Hedgehog is a S41 Species of Principal Conservation Importance in England (formerly UKBAP priority species)
Invertebrates	Stag beetle. Records also include a variety of bees, butterflies, moths, flies and beetles.	Stag beetle is a S41 Species of Principal Conservation Importance in England (formerly UKBAP priority species)

¹¹ Further information about Bats and the law is available at <http://naturenet.net/law/bats.html>

3.2 Wildlife Survey

The site was divided into seven compartments, based on habitat type (see Figure 2). A habitat description for each compartment is provided below. Lists of species recorded during the survey are included at Appendix A.

3.2.1 Compartment A – Amenity grassland with non-native planting

This compartment is bisected by the main access to the Millennium Green. It comprised an area of amenity grassland with a slight, east-facing slope leading down to the car parking area on Cloudberry Close. The compartment is bounded by a low wooden fence (Photograph 1). The grass appeared to be regularly mown and had recently been cut.

Non- native species have been planted in front of the fence line. These include a common mallow *Malva sylvestris*, Rose-of-Sharon (possibly *Hypericum calycinum*) and a *Phormium* species. Some native scrub species such as bramble *Rubus fruticosus* agg. were starting to grow through the planting at the western end.

A stone wall formed the eastern boundary with the car park (Photograph 2). The stone wall provides a support for plant species including ivy *Hedera helix*. The gaps within the wall provide suitable habitat, including potential nesting sites, for invertebrates including bees and other pollinators.



Photograph 1: Amenity grassland area with planting



Photograph 2: Stone wall

3.2.2 Compartment B – South-eastern bank including glade area and cobnut platt

This bank led up to an open glade area (Photograph 3) situated behind a cobnut platt, part of the initial planting scheme aimed at reflecting the Kentish heritage of the site (Medway Valley Countryside Partnership, 2008).



Photograph 3: Steps leading up to pathway to open glade

The south-eastern boundary of the site was defined by a hedgerow (mainly non-native species), storage shed (for the bowls club) and a variety of fencing (boundaries for the gardens of private properties). The hedge provides food and nesting opportunities for birds, small mammals and invertebrates. The area immediately to the path was more open, with bramble, common nettle *Urtica dioica* and tall grasses, all providing feeding and sheltering opportunities for a variety of species including invertebrates, birds and small mammals.

Other species present within the transitional zone between the foot of the hedge and the grass included false oat-grass *Arrhenatherum elatius*, red valerian *Centranthus ruber*, hedge bindweed *Calystegia sepium*, variegated ivy *Hedera* sp., common nettle, common ragwort *Senecio jacobaea* and bittersweet *Solanum dulcamara*. There was a mixture of native and non-native species, providing nectar and pollen resources for bees and other pollinators.

Adjacent to the shed on the south-eastern boundary was an area used for the disposal of vegetation cuttings plus some other items. This area has become overgrown with species including green alkanet *Pentaglottis sempervirens*. Areas like this are likely to support protected reptile species such as slow worms *Anguis fragilis*.

A silver birch *Betula pendula* (from one of the adjacent gardens) was overhanging the pathway leading to the glade area.

The open glade area (Photograph 4) consisted of grass species including cock's-foot *Dactylis glomerata* with a number of herbaceous species including selfheal *Prunella vulgaris*, daisy *Bellis perennis*, red clover *Trifolium pratense*, white clover *Trifolium repens*, field forget-me-knot *Myosotis arvensis*, yarrow, lesser trefoil *Trifolium dubium*, creeping buttercup *Ranunculus repens*, and ribwort plantain *Plantago lanceolata*.

Patches of bramble and common nettle were present, providing food and host plants for butterfly larvae and food for other species including birds and small mammals. Some young sycamore *Acer pseudoplatanus* were recorded growing in and there was evidence of bramble clearance taking place. It looked as though this area may be used for composting vegetation as there were piles of dead leaves present.

A number of invertebrate species were recorded here during the survey including a ladybird larva, hoverflies, buff-tailed bumblebee, a dragonfly species, a large white butterfly and a comma butterfly. This open glade area represents an important foraging and hunting resource for invertebrate species within the site.



Photograph 4: Open glade area

The south western facing bank has been planted with cobnuts. The site management plan for the site (Medway Valley Countryside Partnership, 2008) notes that the species planted were:

Corylus maxima ‘Geant de Halle’

Corylus maxima ‘Gunslebert’

Corylus maxima ‘Kentish Cob’

Other tree species recorded included field maple *Acer campestre* and oak species *Quercus* sp., with an understorey of bramble, hedge bindweed, brome *Bromus* sp., and common nettle. The understorey of tall herbs provides good transitional habitat between the shorter grass and bank behind. Berries and seeds provide food for bird species and small mammals, while the trees provide nesting opportunities for birds. Young sycamore saplings could be seen growing beneath the main canopy, which may require management in the future.

Two desire lines had been created between the top plateau and the amenity grass area (Photograph 5).



Photograph 5: Desire line up to plateau area

Piles of clippings and dead wood were present. Dead wood is a valuable resource on the site as it provides habitat opportunities for a number of invertebrate species and potential refugia for other species

A wide grass pathway (Photograph 6) extended to the western boundary of the site, which was formed by a stone wall. The wall was covered with ivy, bramble and hedge bindweed in places.

Steps led up from the path to a gate to a private house. There were some piles of cuttings along the side of the path, which may be a result of site management. The brambles and nettles had been cut back along the path edge, presumably to maintain the width of the path.

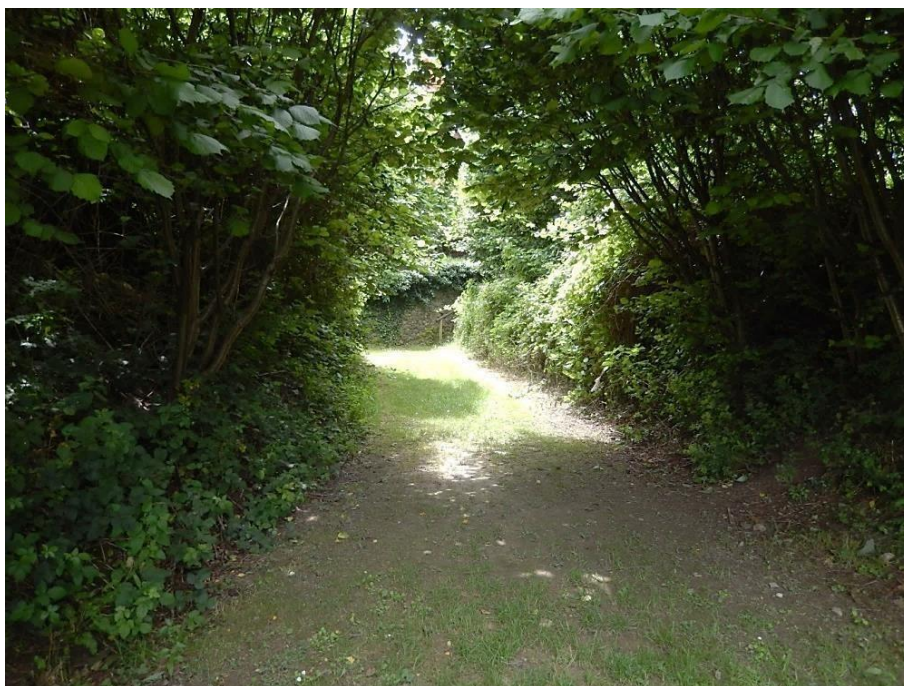


Figure 6: Grass pathway leading to stone wall

3.2.3 Compartment C – Amenity grass recreational area and herb garden

The central area of the site to the south of the paved circular area, comprised a large, open area of amenity grassland, used mainly for informal recreation, including football (Photograph 7).

The main area of grassland was relatively species-poor, supporting a range of flowering plants able to cope with recreational pressure and regular mowing such as white clover, ribwort plantain, daisy and yarrow.

The eastern boundary, adjacent to the car park, has been planted with oak trees.

Small patches of wildflowers and grasses had been left uncut along the southern side of the eastern boundary (Photograph 8). These contained a reasonable variety of flowering plants including selfheal, oxeye Daisy *Leucanthemum vulgare*, common knapweed *Centaurea nigra*, ribwort plantain, common bird's-foot-trefoil *Lotus corniculatus*, creeping cinquefoil *Potentilla reptans*, hop trefoil *Trifolium campestre*, common ragwort, nipplewort *Lapsana communis*, bristly oxtongue *Helminthotheca echioides*, wild carrot *Daucus carota*, field forget-me-knot. Grass species included Yorkshire Fog *Holcus lanatus*, false oat-grass, creeping bent *Agrostis stolonifera* and Timothy *Phleum pratense*. These patches provide source of pollen and nectar for bees, hoverflies, and other pollinators. They also act as stepping stones for species, facilitating movement of less mobile species along the eastern boundary of the site.



Photograph 7: Amenity grassland area



Photograph 8: Example of small areas of wildflowers and grasses

The boulders placed along the boundary of this area, provide an additional habitat for increasing the overall diversity of plant species, particularly lower plants such as mosses and lichens.

The formal paved area forming the northern boundary of the amenity grassland had been planted as an herb garden as part of the original design to reflect the Roman heritage of the site (Medway Valley Countryside Partnership, 2008).

Herbs recorded included lemon balm *Melissa officinalis*, sage *Salvia officinalis*, rosemary *Rosmarinus officinalis* and curry plant *Helichrysum italicum*. A rose species had also been planted. Herbs provide a source of nectar and pollen for invertebrates.

Herbaceous species had started to grow within the gaps between the concrete sections. These included cut-leaved crane's-bill *Geranium dissectum*, creeping buttercup, hop trefoil, white clover, yarrow, common bird's-foot-trefoil, field forgetme-knot, and nipplewort, along with grasses such as creeping bent, wall barley *Hordeum murinum*, Timothy, cock's-foot, barren brome *Anisantha sterilis* and perennial rye-grass *Lolium perenne*.



Photograph 9: Paved area planted with herbs

3.2.4 Compartment D – South-western bank

This north-eastern-facing sloping bank forms the boundary between the Millennium Green and the A20 London Road. It has been planted with cobnuts, and other tree and shrub species including dogwood *Cornus sanguinea*, spindle *Euonymus europaeus*, guelder-rose *Viburnum opulus*, dog rose *Rosa canina* and hawthorn *Crataegus monogyna*.

Whilst areas of the bank beneath the trees and shrubs were bare (Photograph 10), other areas supported an understorey of bramble and common nettle.

Herbaceous species present in the transition area between the bank and the central areas of grassland included rosebay willowherb *Chamerion angustifolium*, herb Robert *Geranium robertianum*, hedge woundwort *Stachys sylvatica*, creeping buttercup, perforate St John's-wort *Hypericum perforatum* and hop trefoil. Lord's sand-ladies *Arum maculatum* was present in the understorey close to the fruit orchard, and teasel *Dipsacus fullonum* was recorded along the western edge of the bank.

Towards the western end of the bank there was an open area with nettle and brambles.

The area as a whole provided good food, sheltering and nesting opportunities for a diversity of species including birds, invertebrates and small mammals.



Photograph 10: South-western bank showing bare patches in the understorey

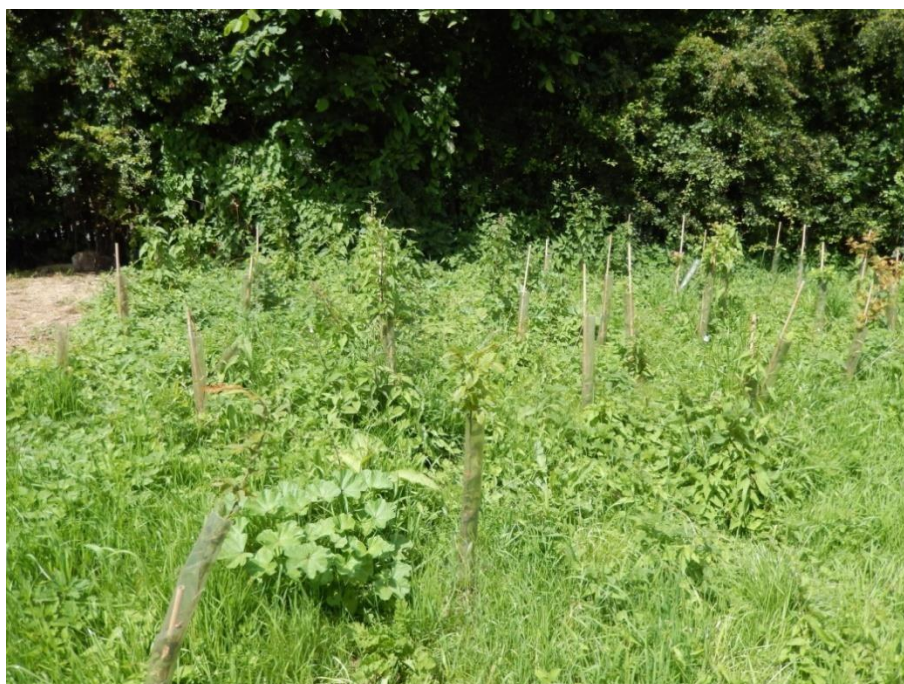
3.2.5 Compartment E – North-western boundary hedge

This hedge forms the boundary between the Millennium Green and Buckland Lane. It has been planted with a variety of shrub and tree species including hawthorn, field maple, crab apple *Malus sylvestris*, guelder-rose and hazel *Corylus avellana*. The nuts and seeds provide a good source of food for birds and small mammals.

The transitional habitat between the hedge and the grassland comprised species such as common nettle, bramble, hedge bindweed and false oat-grass.

A container, possibly used for the storage of tools, was noted in the south-western corner of this compartment. It was bounded by a field maple on one side and a hawthorn on the other. An area of new shrub / tree planting with species including dogwood and field maple was present in this area (Photograph 11). This area will need weeding as nettle and bindweed are starting to become dominant.

Small tortoiseshell and large white butterflies were recorded here.



Photograph 11: New planting area

3.2.6 Compartment F – Orchard

In the north-western corner of the site was a fruit orchard planted with different varieties of cherry and apple trees. The ground beneath the trees supported a closed, tall grass sward with a mix of herbaceous plants. Pathways had been mown through the area (Photograph 12).

Grass species included false oat-grass, Yorkshire fog, Timothy and meadow barley *Hordeum secalinum*. Flowering plants recorded included red clover, daisy, common ragwort and dandelion *Taraxacum officinale* agg.

The orchard was supporting bird species including blackbird and a party of long-tailed tits. A number of bee homes had been located in the cherry and apple trees.

Compost bins were located to the north west of the orchard area, with piles of compost dumped behind them, which were now being colonised by common nettles (Photograph 13). One of the Green volunteers present at the time of the survey explained that the compost bins had been created for local residents to use but supply of compost had exceeded the demand, and the bins had been emptied to make room for the next batch of vegetation. Composted vegetation provides ideal habitat for reptiles, particularly slow worms and viviparous lizards, and may also be frequented by hibernating common amphibians.

Dead wood also present at the boundary between Compartment E and the orchard provides potentially suitable habitat for species including deadwood invertebrates such as stag beetles, as well as refugia for reptiles and amphibians (Photograph 14).



Photograph 12: Orchard area



Photograph 13: Compost bins



Photograph 14: Dead wood habitat

3.2.7 Compartment G – Wildflower meadow

The central area of the site to the north of the paved circular area is managed as a wildflower meadow (Photograph 15).



Photograph 15: Wildflower meadow

The meadow was dominated by grasses such as meadow foxtail *Alopecurus pratensis*, Timothy, Yorkshire fog, perennial rye-grass, false oat-grass and meadow-grasses *Poa* spp. It also supported a variety of flowering plants including common knapweed, common bird's-foot-trefoil, white campion *Silene latifolia*, red clover, white clover, common mallow, yarrow *Achillea millefolium*, lucerne *Medicago sativa*, hop trefoil, ribwort plantain, creeping thistle *Cirsium arvense*, and ragwort. A single specimen of yellow rattle *Rhinanthus minor*, a hemi-parasite on grasses, and often planted with the aim of weakening the vigour of grasses and thereby encouraging species diversity, was also observed.

This compartment provided good habitat for invertebrate species, with bees, moths and a damselfly all recorded on the day of the visit. It is likely that the area will also be used by small mammals, bats and birds.

Pathways have been cut through the meadow (Photograph 16) and a bench provided for relaxing.



Photograph 16: Pathways cut through the meadow area

4 DISCUSSION

The remit for the development of the Green was to provide a quiet area for relaxation and for the benefit of wildlife and education, with development of the site reflecting the countryside of Kent, through the incorporation of features such as an orchard, a cobnut platt, meadow grassland and native species hedges. A sensory garden was created to reflect Roman artefacts found on the site (Medway Valley Countryside Partnership, 2008).

Eighteen years following the development of Allington Millennium Green, the site has matured to provide an attractive area of open space in the heart of Maidstone, contributing to the physical and psychological well-being of the local community. The mosaic of habitats, were found to support a diversity of plant life, with plenty of opportunities for providing foraging, sheltering and nesting and commuting opportunities for a range of animals and insects.

The boundary hedge to Buckland Lane (Compartment E) was found to comprise more than 80% native species and therefore qualifies as a S41 Habitat of Principal Importance in England¹² (formerly UK BAP priority habitat¹³). Hedgerows generally are important features, supporting a large diversity of flora and fauna – for example, some 130 Species of Principal Importance in England are known to be associated with hedgerows and many more use them for feeding and sheltering. This hedgerow is likely to provide pollen and nectar for insects, nuts, berries for birds and small mammals such as shrews, voles and wood mice, and nesting opportunities for common bird species. It may also be used by commuting and foraging bats.

The main botanical interest on site was found within the transitional habitats between the boundary hedge / wooded banks and the adjacent grassland habitats, the wildflower meadow area and the small glade in Compartment B. Although none of the native species recorded were rare, they were nonetheless characteristic of their location, and the presence of flowering plants such as clovers, common knapweed and common bird's-foot-trefoil are important for species such as bumblebees, butterflies and many other insects.

In addition, the transitional habitat between the woodland banks / cobnut platt and more open scrubby / grassland areas effectively functions as a woodland edge habitat. The Forestry Commission estimates that such woodland edge habitats support an assemblage of wildlife greater than the sum of the individual parts, with 80% of all woodland wildlife occurring within the woodland edge.

¹² Further information about Habitats of Principal Importance in England is available at <http://webarchive.nationalarchives.gov.uk/20140605090108/http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx>

¹³ Further information about UKBAP Priority Habitats is available at <http://jncc.defra.gov.uk/page-5706>

The grassland within the orchard (Compartment F) and the wildflower meadow (Compartment G) has been encouraged to grow long, and is likely to provide valuable shelter, foraging and nesting opportunities for small mammals, bats and reptiles. These grasslands, together with the orchard trees, can also support insect communities, including pollinators such as bumblebees, hoverflies, butterflies and moths. Many of our pollinating species are facing many pressures which have led to declines in numbers and a reduction in the diversity of species to be found in many parts of the country, and areas such as these may contribute towards boosting local insect populations and, at a local level, contribute towards the vision

of the National Pollinator Strategy¹⁴, to see pollinators thrive, so they can carry out their essential service to people of pollinating flowers and crops, while providing other benefits for our native plants, the wider environment, food production and all of us.

The compost area (Compartment F) with its compost bins and piles of dumped compost may well support reptiles, particularly slow-worms and grass snakes, as well as frogs, toads and newts, all of which are known to occur within the overall search area (Chapter 3.1.2). As both slow worms and grass snakes are protected against killing and injuring, it is recommended that care should be taken when emptying / moving compost, particularly in late summer when grass snake eggs may be present.

¹⁴ <https://www.gov.uk/government/publications/national-pollinator-strategy-for-bees-and-other-pollinators-in-england>

5 RECOMMENDATIONS FOR MONITORING

One of the objectives of this survey was to make recommendations for a monitoring programme that could be undertaken mainly by local volunteers.

The data search revealed the presence of a number of species within the search area which are considered to have the potential to occur within the site (Table 1, Chapter 3.1.2). These include reptiles and amphibians, birds, bats, small mammal species, and invertebrates, including bees, butterflies, moths, flies and beetles.

Whilst the identification and monitoring of some species groups, such as flies, beetles, and moths require significant expertise and resource commitment (both equipment and time), there are nonetheless a number of species groups that can be surveyed competently by relative novices, with collation of records feeding into National Recording Schemes.

The approach recommended in this report is that monitoring at Allington Millennium Green should start by focussing on a small number of specific groups, with the aim of increasing the range of surveys in the future if volunteer numbers and resources allow. This will enable volunteers to develop survey skills over time and encourage others from the local community to get involved with the surveys.

In order to focus monitoring effort most effectively, it is recommended that surveys and monitoring should focus initially on the following groups:-

- Butterflies
- Birds
- Reptiles

All records collected, whether from formal surveys, or from incidental records collected while visiting the Millennium Green should be shared with the wider recording community, in order to contribute to our wider understanding of the current presence and distribution of species across the county and across time. In Kent, the Kent and Medway Biological Records Centre is the local recording centre, and it is possible to submit records online via their website <http://www.kmbrc.org.uk/recording/sendrecords/index.php>. Records can also be uploaded via mobile devices using apps such as iRecord <http://www.brc.ac.uk/irecord/>.

Further details on each of the suggested survey / monitoring programmes is outlined below:

5.1 Butterflies

Butterflies are big, colourful and relatively easy to identify, they also react very quickly to changes in their environment, which makes them excellent biodiversity indicators.

At its most basic, the monitoring at Allington Millennium Green could involve participating in the Big Butterfly Count, a nationwide survey run by Butterfly Conservation Trust, aimed at helping them to assess the health of the UK environment. It was launched in 2010 has had become the world's biggest survey of butterflies.

Full details of the scheme, including methodology, are available on the Butterfly

Conservation Trust website at <http://www.bigbutterflycount.org/> , but in summary, the count takes place during July and August each year and involves a 15 minute survey of the site recording the butterflies present, with volunteers free to undertake as few or as many surveys as they are able to commit to during this time period. Records can then be submitted on line or by using the Big Butterfly Count smartphone apps..

If any of the Allington Millennium Green volunteers wished to make a long term commitment to carrying out a weekly survey, then adopting standardised monitoring method used by the UK Butterfly Monitoring Scheme (<http://www.ukbms.org/>) could be considered. This would involve undertaking a fixed-route transect walk (Pollard Walk) across the site including all the different habitat areas. Using this method, butterflies seen in a fixed width band (typically 5m wide) along the transect are recorded. Transect walks are undertaken between 10.45am and 3.45pm and only when weather conditions are suitable as weather conditions will affect the number of butterflies seen. The methodology recommends that a survey is undertaken weekly from the beginning of April until the end of September.

5.2 Birds

Birds are good indicators of habitat quality would be a useful group to monitor as part of the overall monitoring programme for the site.

The methodology recommended here will enable monitoring of population changes of bird species on the Green over time.

In its most simplified form, the long-term ongoing monitoring of birds will ideally involve making monthly visits to the Green throughout the year, walking a set route timed for some time between one hour after dawn and 11am. GIGL (Greenspace Information for Greater London) has a detailed methodology presented on its website at <http://www.gigl.org.uk/recording-surveying/survey-guidance/bird-surveys/> .

Volunteers may also wish to register with BirdTrack, which is a scheme launched in 2004 by the RSPB, BTO and Bird Watch Ireland. The scheme runs all year and encourages volunteers to take part to provide information on bird sightings which are used to provide data on migration movements and the distribution of birds throughout Britain and Ireland, submitting their observations directly onto the BirdTrack website, or by using a free app for iphone or Android devices. More information relating to this scheme and details of how to register is available on the website (<https://www.bto.org/volunteer-surveys/birdtrack/about>).

There would also be potential for participating in the Big Garden Bird Watch, which would involve counting birds seen in the Green over a one hour period during the last weekend in January. Further information is available on the RSPB website at <http://www2.rspb.org.uk/discoverandenjoynature/discoverandlearn/birdwatch/> .

Volunteers may benefit from attending a bird identification course to develop skills in this area. There are many courses available, including one day and weekend courses run by the Field Studies Council (<http://www.field-studies-council.org/>) , and one day Wildlife Study Days run by Kent Wildlife Trust, with costs ranging from £27 for a one day course, to in excess of £200 for a weekend.

5.3 Reptiles

Prior to carrying out a reptile survey it is strongly recommended that interested volunteers should attend a suitable training course, which will provide invaluable information concerning identification of species and habitat preferences, as well as survey methodology.

Organisations that offer one day training courses include Kent Wildlife Trust in association with Kent Reptile and Amphibian Group. Courses cost in the region of £27 per person per day and are advertised on the Wildlife Trust website:

<http://www.kentwildlifetrust.org.uk/discover-learn/wildlife-study-days> .

Standard guidance for undertaking reptile surveys was produced by Froglife in 1999 (Froglife, 1999). This guidance was produced initially with volunteers in mind, and is available to download from

http://www.devon.gov.uk/froglife_advice_sheet_10_reptile_surveys.pdf .

It is recommended that an initial presence / absence survey, involving seven visits spread throughout the period April – end June, would be ideal for this site. If reptiles are found within the Green, then the results could be used to inform future management decisions such as management of the compost areas, and decisions on whether to incorporate reptile-friendly features such as hibernacula, within the site.

6 REFERENCES

Froglife. 1999. *Reptile survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation*. Froglife Advice Sheet 10. Froglife, Halesworth
Medway Valley Countryside Partnership. 2008. *Allington Millennium Green Management Plan 2008-2018*, Medway Valley Countryside Partnership

Appendix A: Species recorded on 5th July 2016

Vascular Plants

Scientific Name	Common Name
<i>Acer campestre</i>	Field maple
<i>Acer pseudoplatanus</i>	Sycamore
<i>Achillea millefolium</i>	Yarrow
<i>Agrostis stolonifera</i>	Common bent
<i>Alopecurus pratensis</i>	Meadow foxtail
<i>Anisantha sterilis</i>	Barren brome
<i>Arrhenatherum elatius</i>	False oat-grass
<i>Arum maculatum</i>	Lord's-and-Ladies
<i>Bellis perennis</i>	Daisy
<i>Betula pendula</i>	Silver birch
<i>Calystegia sepium</i>	Hedge bindweed
<i>Centaurea nigra</i>	Common knapweed
<i>Centranthus ruber</i>	Red valerian
<i>Chamerion angustifolium</i>	Rosebay willowherb
<i>Cirsium arvense</i>	Creeping thistle
<i>Cornus sanguinea</i>	Dogwood
<i>Corylus avellana</i>	Hazel
<i>Crataegus monogyna</i>	Hawthorn
<i>Dactylis glomerata</i>	Cock's-foot
<i>Daucus carota</i>	Wild carrot
<i>Dipsacus fullonum</i>	Wild teasel
<i>Euonymus europaeus</i>	Spindle
<i>Geranium dissectum</i>	Cut-leaved crane's-bill
<i>Geranium robertianum</i>	Herb Robert
<i>Hedera helix</i>	Ivy
<i>Helichrysum italicum</i>	Curry plant
<i>Helminthotheca echioides</i>	Bristly oxtongue
<i>Holcus lanatus</i>	Yorkshire fog
<i>Hordeum murinum</i>	Wall barley
<i>Hordeum secalinum</i>	Meadow barley
<i>Hypericum calycinum</i>	Rose-of-Sharon
<i>Hypericum perforatum</i>	Perforate St. John's-wort
<i>Lapsana communis</i>	Nipplewort
<i>Leucanthemum vulgare</i>	Oxeye daisy
<i>Lolium perenne</i>	Perennial rye-grass
<i>Lotus corniculatus</i>	Common bird's-foot-trefoil
<i>Malus sylvestris</i>	Crab apple
<i>Malva sylvestris</i>	Common mallow
<i>Medicago sativa</i>	Lucerne
<i>Melissa officinalis</i>	Lemon balm
<i>Myosotis arvensis</i>	Field forget-me-knot
<i>Pentaglottis sempervirens</i>	Green alkanet
<i>Phleum pratense</i>	Timothy
<i>Picris echioides</i>	Bristly oxtongue
<i>Phormium</i> sp.	A phormium species
<i>Plantago lanceolata</i>	Ribwort plantain
<i>Poa</i> sp.	A meadow-grass
<i>Potentilla reptans</i>	Creeping cinquefoil
<i>Prunella vulgaris</i>	Selfheal
<i>Quercus</i> sp.	Oak species
<i>Ranunculus repens</i>	Creeping buttercup
<i>Rhinanthus minor</i>	Yellow rattle

<i>Rosa canina</i>	Dog rose
<i>Rosa</i> sp.	Rose species
<i>Rosmarinus officinalis</i>	Rosemary
<i>Rubus fruticosus</i> agg.	Bramble
<i>Salvia officinalis</i>	Sage
<i>Senecio jacobaea</i>	Common ragwort
<i>Silene latifolia</i>	White campion
<i>Solanum dulcamara</i>	Bittersweet
<i>Stachys sylvatica</i>	Hedge woundwort
<i>Taraxacum officinale</i> agg.	Dandelion
<i>Trifolium campestre</i>	Hop trefoil
<i>Trifolium dubium</i>	Lesser trefoil
<i>Trifolium pratense</i>	Red clover
<i>Trifolium repens</i>	White clover
<i>Urtica dioica</i>	Common nettle
<i>Viburnum opulus</i>	Guelder-rose

Incidental Records

Birds

Wood pigeon
Blackbird
Long-tailed tit

Butterflies and Moths

Small tortoiseshell
Large white
Comma

Bees and Wasps

Buff-tailed bumblebee

Beetles

Ladybird larvae

Dragonflies and Damselflies

A dragonfly species