

Leicester
City Council



Leicestershire
& Rutland
Wildlife Trust

BioBlitz Leicester



Aylestone Meadows LNR

17th – 18th May 2013

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Executive Summary

The fourth annual BioBlitz was held across Aylestone Meadows on the 17th and 18th of May 2013. The main aims of the BioBlitz were to encourage people to get involved in finding out what types of wildlife are 'on their doorstep'. Helped by professional and volunteer naturalists the evidence base would then help to inform on how to manage the nature reserve in the future.

The focus of this years event was to record as many species as possible while trying to get the local community and the wider public involved with wildlife. Two local schools (75 children) took part in seven activities aimed at educating and promoting awareness of wildlife and its conservation.

Leicester City Council in partnership with Leicestershire and Rutland Wildlife Trust organised the BioBlitz. Many conservation organisations, specialists and volunteers helped at the event by either recording species, leading guided walks or displaying material and answering questions helping reach the target set of recording 500 species over 24 hours.

Displays and activities were organised to encourage the public to participate in nature themed activities at a central location called the basecamp. A running total of species was provided throughout the day with a total of 202 flowering plants, 52 birds, 10 lichens, 15 moths and 11 species of mammals. These were recorded by more than 20 experts and amateurs who led guided walks and surveyed.

The 2013 Bioblitz had eight guided walks for the public could book onto, the tree, bat, moth and amphibian walks on the Friday night proved extremely popular attracting 60 people. For the first time, boat tours of the Grand Union Canal and River Soar were available on Saturday, these were a unique selling point and nearly every boat was full.

Four self-guided walks were available in Aylestone Meadows to encourage the public to visit different habitats at the reserve. The public were encouraged to complete recording sheets of what they had seen and return them in receipt for a small prize and entry into a larger prize draw.

A total of 447 species of plants and animals were recorded over the 24 hours including 52 bird species indicative of woodland habitats, 39 aquatic invertebrates indicating the high water quality across the meadows, 202 flowering plants including 41 tree and shrubs, 33 bryophytes and only 15 moth species due to poor weather conditions.

A high proportion of fungi species were recorded over the 24 hour period totalling 21 records which was unexpected for the time of year for evidence of the fruiting bodies. Most mammals were recorded by field signs accounting for 9 species, 2 of which were common bat species found feeding over water. No amphibian or reptiles recorded during the BioBlitz.

The prize giving event was held in June to award the prizes for the most amounts of species recorded by the public, presented by The City Mayor. This also coincided with the launch of the Leicester City Biodiversity Action Plan (BAP) and the three winners of the photographic competition also presented by The Mayor.

Recommendations have been made as a result of the analysis of the species data and are included in the report to increase biodiversity across the reserve.

1 Introduction

1.1 Background to the Bioblitz

BioBlitz events are gaining in popularity in the UK, since first appearing in America from the early 1990s, they have now become popular right across the globe with BioBlitz records from the Americas, Australia, New Zealand and Europe. The BioBlitz has now spread into gardens, with this years BioBlitz in the garden organised by the National BioBlitz Network.

The Leicester City BioBlitz is now into its fourth year with each event gaining in popularity. It is also a central part of The City Council's Biodiversity Action Plan and feeds in data on how to manage habitats and nature conservation.

In the early planning stages it was agreed the local schools would be invited again to learn about wildlife and spread the word about nature and what it is. This was considered a great opportunity to promote and encourage the younger generation to become interested in biodiversity and the environment.

Aylestone Meadows Local Nature Reserve (LNR) was chosen to host the 2013 BioBlitz because of its wide range of habitats which support a diverse range of species. As with previous BioBlitz events there was a dedicated basecamp at the reserve to act as a focal point for the public attending the event. This was located near to the main car park on Canal Street where the main activities were based (Figure 5).

1.2 Partners in Bioblitz

The main partners in the 2013 BioBlitz were Leicester City Council and the Leicestershire and Rutland Wildlife Trust.

Support from local groups and charities in organising and running the event was greatly appreciated which included information stands and activities from: Royal Society for the Protection of Birds (RSPB), The Open Air Laboratories (OPAL), The Leicestershire and Rutland Badger Group and the Leicestershire and Rutland Beekeepers Association. Guided walks were provided by NatureSpot, Botanical Society of the British Isles (BSBI), University of Leicester and Aylestone Meadows Appreciation Society (AMAS).

1.3 Publicity

Publicity for the 2013 BioBlitz started several months before the event and consisted of written articles, presentations, posters, websites and word of mouth. A summary of the main types of publicity are shown below in Table 1.

Table 1 Publication use to promote the BioBlitz

Websites	TV and Radio	Newspapers and Magazines	Presentations and Conferences	Local Communities
BBC Summer of Wildlife	BBC radio Leicester	Leicestershire and Rutland recorder	Braunstone and Rowley Fields community meeting	Posters in parks and notice boards
National Bioblitz	BBC Urban Jungle (Aired in August 2013)	Leicester Link	Aylestone Meadows Park User Group Meeting	Leaflet drops around the local community
Leister City Council	East Midlands Today	Leicester Mercury	County Recorders Conference	
NatureSpot		Leicester City Council: FACE and Newspod		
Facebook/ Twitter				
Email				

1.4 Funding

Leicester City Council (LCC) funded the 2013 BioBlitz. A successful application for Ward Committee Funding resulted in £1,577 being granted. This paid for hire of St. Andrews Football club and use of toilet facilities, first aid and promotional material. Contributions were also made from the Leicestershire and Rutland Wildlife Trust, Kings Lock Tea rooms and the Leicester Peoples Photographic Art Gallery.

1.5 Displays and Information

On the Friday evening there were two main areas of display: - St Andrews Football Club where specimens loaned from the New Walk Museum were on display. Several marquees and displays were erected to promote Parks, biodiversity and the Environment Agency nearby in the reserve (figure 5). Areas were also set aside to promote the self-guided walks and activities for the following day.



Figure1: Mammal Fest display



Figure 2: RSPB display

During the Saturday event the basecamp provided a central point for books, field guides and microscopes to aid the naturalists and public alike in identifying species. St Andrews Football Club was used for further displays by conservation organisations and activities such as making bird fat feeders and wildlife badge making.

Leicestershire and Rutland Environmental Resource Centre (LRERC) also provided equipment for the BioBlitz. This included the use of bat detectors, nets and torches essential for the evening bat and amphibian walks; other items included, binoculars, magnifying glasses, hand lenses, nets, buckets and collecting pots needed for the event during the day.

Throughout the BioBlitz an on-going tally of total species was started and a display board at the basecamp was regularly updated by conservation staff from the City Council. The different taxa was also displayed detailing how many plants, insects and mammals were recorded during the 24 hour period.

2 Aylestone Meadows

Aylestone Meadows is Leicester's largest nature reserve situated in the floodplains of the Rivers Soar and Biam. It is a vital green lung and wildlife corridor. It covers the more industrial areas to the north by the old Gas Works down to the rural countryside to the south of the reserve grazed by Long horn cattle. The meadows are readily accessible from the Great Central Way, Grand Union Canal and the Riverside path.

The meadows are made up of a mosaic of habitats from flower-rich flood meadows, marshy wetland and woodland to the open water and weirs of the river and canal making it one of the most important areas for wildlife in the city and along the Soar Valley.



The diverse range of habitats found at Aylestone Meadows gives rise to many locally and nationally rare species as well as the more common species of plants, trees birds and insects, providing a haven readily accessible for the people living close by.

Figure 3: Aylestone Meadows and River Soar

Areas particularly rich are the flood meadows to the south of the reserve where the marsh grassland is kept in traditional management by a herd of Longhorn cattle. This enables the species-rich grassland to flourish with marsh marigold, lesser spearwort and meadow saxifrage having been recorded there recently by Leicestershire and Rutland Wildlife Trust.



Figure 4: Longhorn cattle grazing at spearwort fields

The Local Nature Reserve is managed by Leicester City Council Riverside Rangers, but due to the size and complexity many other statutory and non-statutory organisations are involved. These include the Environment Agency, Canals and River Trust for the management of water courses, property services for the grazing tenants and Sports for the Aylestone Meadows playing fields. Volunteers such as The Conservation Volunteers (TCV), Forest Schools and Aylestone Meadows Appreciation Society (AMAS) help through organised conservation days and complete tasks such as coppicing willows, removing invasive vegetation and litter picks are regularly completed by the voluntary groups.

AYLESTONE MEADOWS

BioBlitz Leicester

- Aylestone Meadows boundary
- City Boundary
- Access Point
- ⋯ Footpath
- ⋯⋯ Cycleway/Footpath
- ▢ Steps
- Boardwalk
- P Parking
- G Great Central Way pedestrian and cycleway
- Nature Reserve
- Grazing Fields
- Private land with no public access



Figure 5: Map of Aylestone Meadows

3 Participation

3.1 School involvement and wildlife based activities

Two schools from around the local area were invited to take part in the BioBlitz activities with 60 children from Granby Primary School and 15 from Ellesmere Community College aged 7 – 12 years old taking part.



Figure 6: Local Schools lined up for their activities

There were seven organised activities which included pond dipping and mammal fest ran by LCC, which involved looking for aquatic invertebrates in the nearby pond and explaining the secret life of mammals. Leicestershire and Rutland Wildlife Trust helped children collect leaves, identify them and arrange them in different colours. Worm charming by OPAL



encouraged children to use mustard and chilli to entice different worms out of the ground and identify them. The RSPB, Leicester Badger Group and Leicestershire and Rutland Beekeepers Association provided a range of activities to encourage the children to take part and learn about wildlife.

Figure 7: Leicestershire Beekeepers stand

The children were split up into groups of approximately 15 and allowed 15-20 minutes at each activity and supplied with a survey sheet which they could keep and remind them of the day, what they saw and how much they had learnt.



Figure 8: Leicestershire Badger Group display

The local girl guides were invited to take part in the BioBlitz on the Friday evening. Approximately 30 guides took part in pond dipping and wildflower identification in the woodlands and meadows. The guides all completed self-guided blitzes and contributed to the overall Bioblitz total with 37 species of plants and insects recorded that evening.



Figure 9: Girl guides pond dipping activity

3.2 Staff, Volunteers and Partners

A total of 57 members of staff, conservation organisations and volunteers helped out at the event including inputs from Leicestershire and Rutland Wildlife Trust, The Leicestershire Badger Group, Leicestershire and Rutland Beekeepers Association and the Environment Agency. The staff and volunteers led guided walks, activities or surveyed for species and contributed significantly to the overall total achieved during the event. Perhaps one of the biggest contributions of staff and volunteers was the overwhelming enthusiasm and willingness to help and encourage others to get involved as well as providing their all-important level of experience for these difficult and more obscure species to identify.

3.3 Public

The many families and individuals who attended the event were encouraged to record wildlife on specially designed sheets and return them with a chance to win a prize for the most number of species recorded. There were three prizes, a year's membership of the Leicestershire and Rutland Wildlife Trust, "A Wildlife of Britain book" and a £40 voucher to spend at the Kings Lock Tea Rooms. People who returned record sheets on the day were also given a small prize as a 'thank you'. These included a selection of wildflower seeds, small tomato, nasturtium, or cucumber plants, pencils, crayons and general promotional material.

The public were also encouraged to take part in a photographic competition during the event where they could enter a picture into four main categories.

- 'Living Landscapes'
- 'Wonderful World of Water',
- "Powerful Plants"
- 'Fauna Small and Mighty'.

Figure 10: Overall winner of the BioBlitz Photo Competition - Liz Marriott



3.4 Guided Walks

Each BioBlitz event organises guided walks for the public to engage them with wildlife and record species. This year there were a total of eight different guided walks throughout the 24 hour period attracting people of all ages and abilities. All guided walks were pre-book only, where attendees have to either ring or email in to book a place. Further details were then given of where to meet and clothing to wear. Contact phone numbers were also taken for health and safety reasons.

The 17th of May started off with a guided walk led by the Trees and Woodlands Officer (LCC) to raise awareness of the many diseases and fungi that live in our woodlands and the latest threats to our trees. The walk also included a guide to the most common types of tree and how to identify them.

During the Friday evening bat specialists from University of Leicester and Leicestershire and Rutland Wildlife Trust led over 60 people on an evening bat walk around the meadows and canal. Hand held bat detectors were used by the public to listen to the types of bat commuting and foraging around the meadows.

The amphibian walk led by Neill Talbot and Kay Snowdon surveyed for newts, toads and frogs using nets, buckets and torches to find species living in or near the water.



The evening guided walks ended with a tour around the moth light traps set up by local experts in moth identification. Large white sheets were laid out to attract any flying species which were then caught and identified to the public.

Figure 11: Late night moth trapping

The Saturday morning events started off with two guided bird walks (a morn and dawn chorus) led by Leicester City Council specialists. The dawn chorus starting at 7am and the morn at 9am. Both walks were popular although the later walk was better attended.



NatureSpot led two minibeast hunts during the day which attracted 21 people – mainly family groups with young children. Details of species found are discussed in section 5.2.2

Figure 12: Families taking part in minibeast hunts

New to the BioBlitz this year were guided boat tours of the Grand Union Canal. This enabled the public to record species that they would not have necessarily been able to access from the river bank. Each trip lasted approximately 20 minutes and was guided by the Riverside Rangers team.



Figure13: Public getting on the bell boat tours

Invertebrate samples collected by the University of Leicester specialists from the River Soar at Pack Horse bridge and Pebble beach, were very popular and attracted lots of interest at the basecamp. Two tables were set up with observation trays, buckets and microscopes. People visiting the stand were invited to take a look at the species found in the samples and given a quick lesson on invertebrate identification.



Figure 14: University of Leicester invertebrate sampling

The local BSBI group led a walk on the introduction into the world of plants. The walk was well attended with a mix of age groups and plant identification abilities, but proved very popular.

Contributions from local volunteers and residents made up of AMAS ran a meadows guided walk. With excellent local knowledge of the area, a group of approximately 10 people were led around the meadows and introduced to the delights of the reserve.

3.5 Naturalists and Experienced Surveyors

More than 20 professional experts and amateur naturalists volunteered to record species for the 2013 BioBlitz from areas of terrestrial and aquatic invertebrates, amphibians, mammals, birds, fungi, plants, molluscs and moths from country recorders and national experts to local volunteers and residents.

3.6 Recording Forms and Site Maps

A site map was produced and given out to specialists directing them to the most interesting areas of the meadows (Figure 5) to maximise their time, expertise and number of species they could identify in the time available. A further four self-guided walks were designed around the meadows by the nature conservation team: Dog walkers 50 species challenge, Wetland, Woodland and Wildflower blitzes to maximise the coverage of the meadows and encourage as many people as possible to record species. By designing several different walks this allowed people to do more than one walk and contribute to the overall species total. The walks selected were based on specific habitats – wetland (canals, rivers and ponds), woodland and wildflower areas (meadows and marsh areas). A tick box of illustrated plants and animals was provided on sheets to help with identification. (Appendices 1 - 4).

3.7 Accuracy of Information and Verification

The specialist surveyors were self-policing in the accuracy of their data with a number of recorders taking specimens away on the day, to confirm identifications at a later stage or able to consult with national experts and compare with voucher specimens. These surveyors were made up of County recorders (specialists in groups of species e.g. mammals, higher plants, lichens, lepidoptera) and experienced surveyors/recorders whose records were generally accepted as verified by the Leicestershire and Rutland Environmental Record Centre (LRERC).

Any data found to be inconclusive (for example a non-standard common name used by a recorder noting down a record out of their usual field of expertise) were removed from the lists during sorting and analysis.

3.8 Surveying Techniques

The methodologies followed best practice and standard techniques when and where possible. The range of data collected may have been in part due to the professional equipment made available from LRERC. This included newt torches for recording amphibians by torch light; a range of pond-dipping and invertebrate nets, bat detectors, GPS survey equipment, field identification sheets and field guides. Botanists used the standard VC 55 recording sheet.

Bats were recorded using hand-held bat detectors, which recorded the presence of bats using echo-sound and specialists identified the sounds to species level.

Small mammal traps (Longworth and plastic small mammal traps) were used to trap mammals. These were baited with appropriate food (meal worms, nuts and fruit) and bedding (straw). They were set up at dusk on the Friday evening and checked again within 7 hours the following morning.

Invertebrates were trapped using sweep nets, jars and specialist light traps for moths. Specimens were only taken where analysis after the event was necessary for verification of species.

4 Results and Analysis

4.1 Results

The Aylestone Meadows Bioblitz recorded a total of 447 species narrowly missing the 500 target. All records were of native British species or accepted naturalised species such as rabbit or horse chestnut. The total included 202 flowering plants and trees, 15 species of moths, 11 mammals, 110 invertebrates and 52 species of birds (Figure 4.1). The full species list is in (Appendix 5).

Figure 4.1 Species recorded at the 2013 Leicester Bioblitz

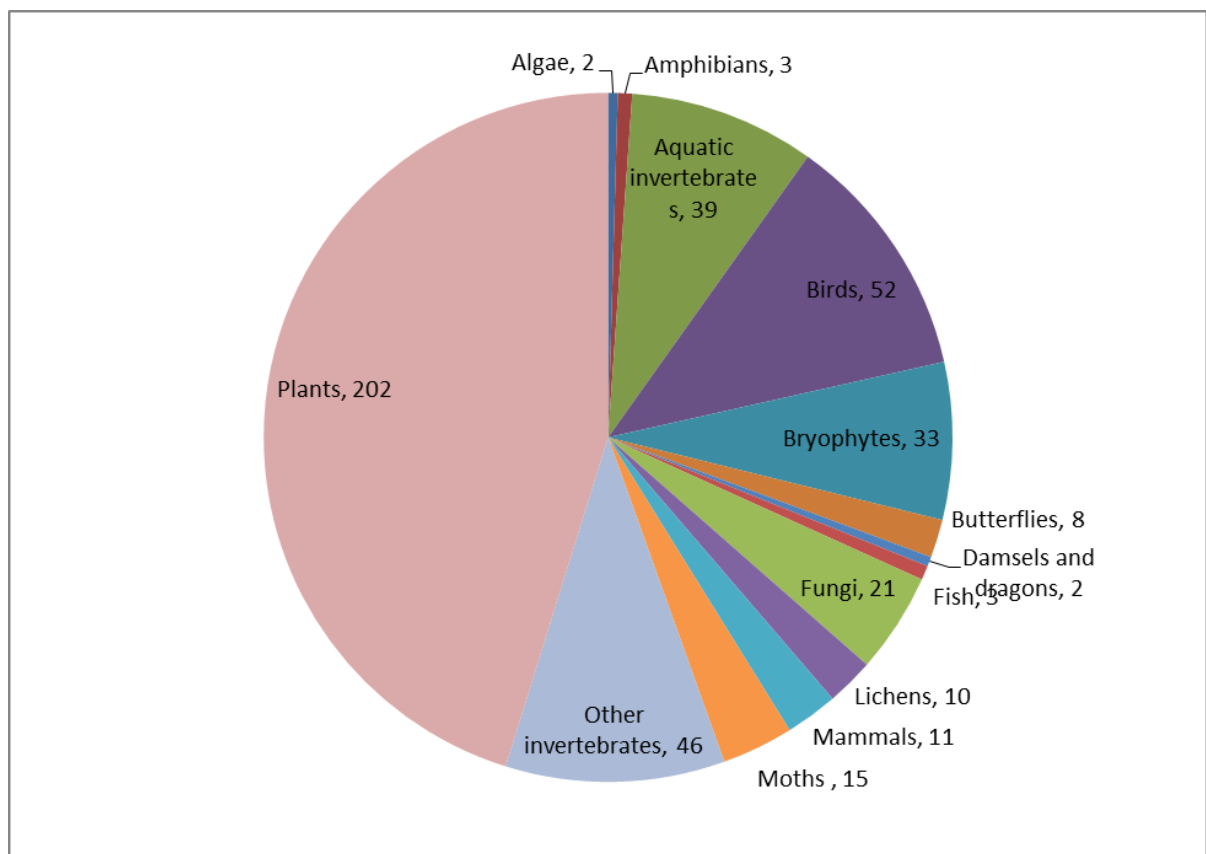


Figure 4.2 Numbers of birds, invertebrates, lower plants, plants and vertebrates found at Aylestone Meadows

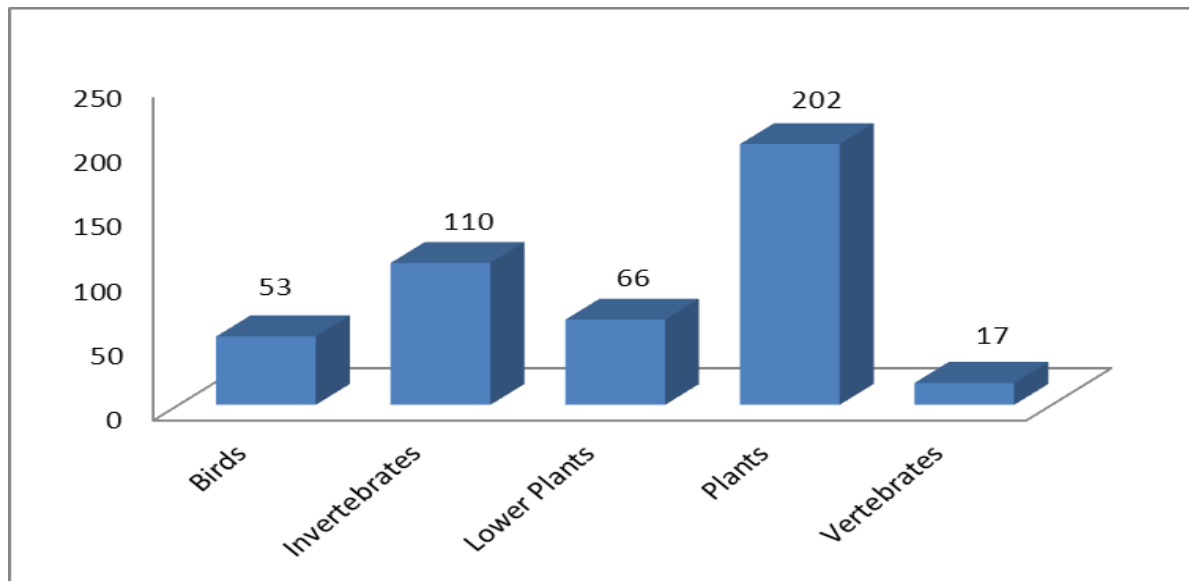


Figure 4.2 shows the number of species found in each of the major groups at Aylestone Meadows. The broad group “lower plants” includes algae, mosses, lichens, ferns and fungi, while the broad group ‘Vertebrates’ constitutes amphibians, fish and mammals.

Figure 4.3 Numbers of invertebrate orders recorded at Aylestone Meadows

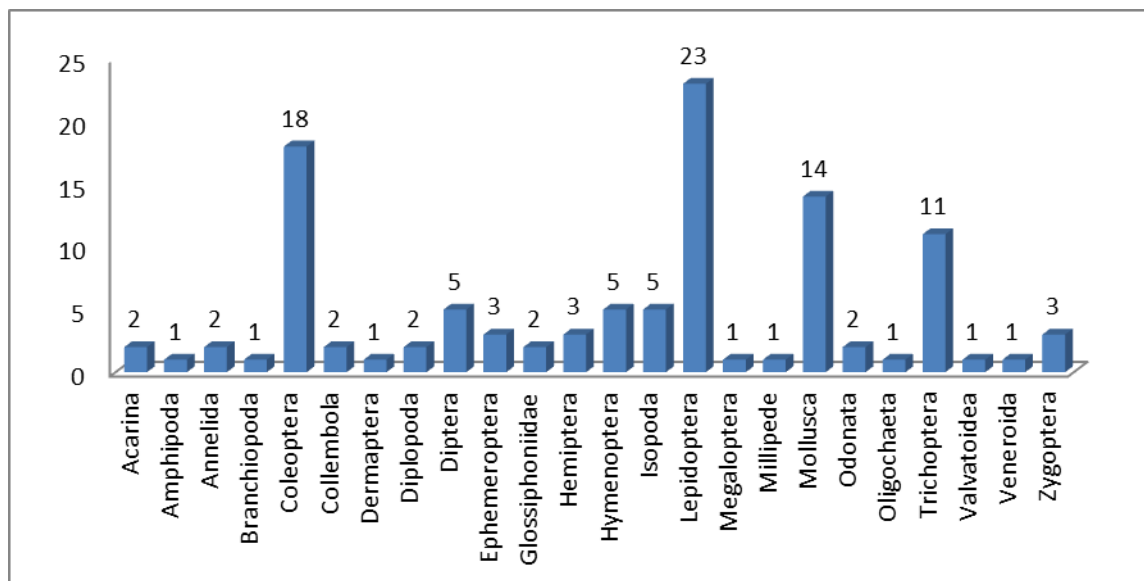
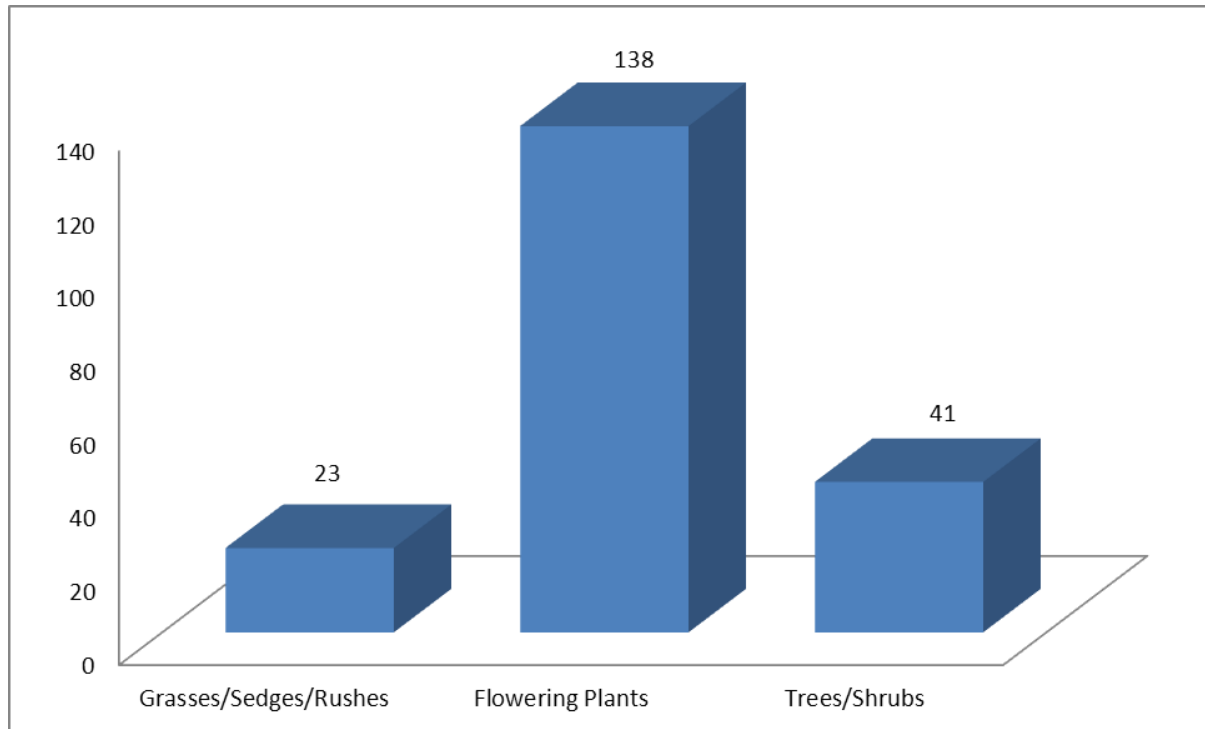


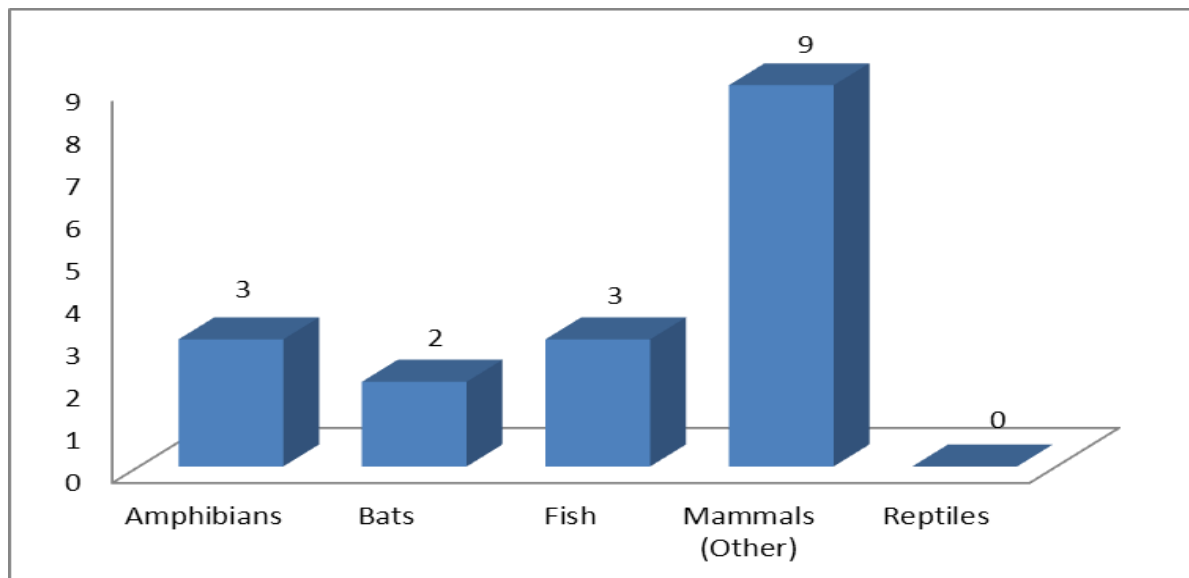
Figure 4.3 shows the number of invertebrate orders recorded including Lepidoptera (butterflies and moths) and Coleoptera (beetles).

Figure 4.4 Number of species of flowering plants recorded at Aylestone Meadows grouped by plant type



A total of 211 species of flowering plants were recorded, these were subdivided into grasses, sedges and rushes, flowering plants, trees and shrubs (Figure 4.4).

Figure 4.5 Number of vertebrates (divided into informal groups) recorded at Aylestone Meadows



A total of 17 vertebrates were recorded at Aylestone Meadows during the 2013 BioBlitz although this did not include any reptiles (Figure 4.5)

Figure 4.6 Number of species recorded by the public on recording sheets

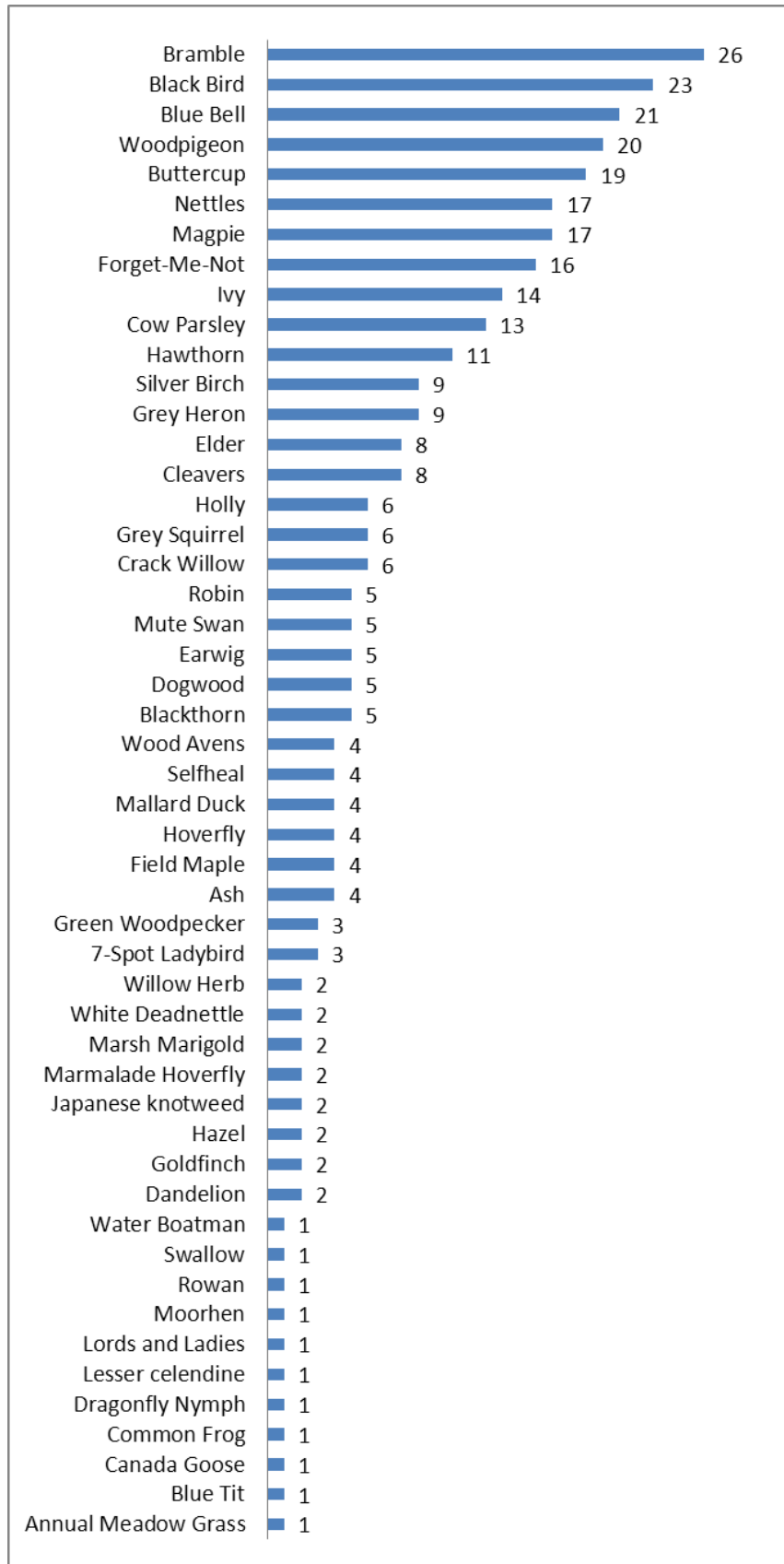


Figure 4.6 indicates the most common species recorded by the public from the recording sheets from highest to lowest.

5 Discussion

5.1 Public Participation

The schools were invited to attend outside of the main event from 12.30pm to 3.30pm. The school children were split up into groups of approximately 15 pupils and accompanied by teachers and classroom assistants. Parks staff guided the groups around the different activity stations to keep them on time and encourage the students to take part. Each activity were supported by specialists in their subject, which enabled the children to learn interesting facts and gain an in depth knowledge about their activity. Activities that were very popular included the pond dipping, dragon fly making and worm charming.

The same format from previous years was followed when organising the school activities. This year organisers agreed to limit it to seven activities. This worked very well as all groups of children took part in all activities and spent a reasonable amount of time at each one.

Each group of students were asked to write down what they enjoyed about the event or wildlife in general and add to 'The Tree of Life'. Some of the messages are below:

"I didn't know all this wildlife existed"

"I really enjoyed mammal fest I didn't know about stuffed animals at the museum"

"I love the outdoors"

During the main event the public participation was varied. All the guided walks were very well attended especially on the Friday evening with an excess of 60 people joining the guided bat, moth and amphibian walks.

The bat walk in particular was expected to be popular and two specialists were asked to cover two walks. The public were split into groups to cover the amphibian walk and the two bat walks then exchanged to give members of the public a chance to survey species. This proved extremely popular which all generations of the group enjoyed. However, with the large numbers attending in both groups this made it difficult to organise and control members of the public and passing the equipment around. This walk was advertised as three separate events which accounted for the increased numbers; in future these events shall be amalgamated into one event and made more manageable, regrettably decreasing the amount of public that can attend.

Torches and the equipment used for catching amphibians for example the nets and buckets provided by (LRERC) aided the participants in catching three amphibians. The guides were knowledgeable in their subjects and offered all participants a broad understanding of the environments amphibians are likely to be found in.

When the bat, moth and amphibian guided walks had finished the participants returned to basecamp where several moth traps had been set up previously to capture flying insects around the woodland. Specialists were operating the traps who could provide information and interesting facts about what was being caught and why. Some specimens were kept overnight for public display at the basecamp the next day. All species recorded during these walks contributed to the BioBlitz total.

The 18th of May started with a dawn chorus lead by a specialist working for the City Council. This walk was not as well attended as the morn chorus as starting earlier in the morning may have been restrictive to members of the public who are not avid bird watchers. However, all enjoyed the walks and both contributed to the overall species total.

The following guided walks were well attended, however not all walks were full to capacity. There was a steady inflow of pre-bookings for the walks but majority of people attending the walks joined during the day. This was thought to be down to the weather forecast which was overcast, cold and showery for the weekend deterring the public from attending.

For the first year running LCC Parks department were able to offer guided boat tours of the Grand Union Canal. This gave participants the chance to spot wildlife from the river while having informal conversations with the Riverside team. The boats proved very popular with most booked up throughout the day and the public giving their thanks for the experience, indicating this is a unique experience for recording wildlife and something that should be repeated where possible.

The City Mayor and the two Aylestone Ward Councillors, Councillor Porter and Clarke attended the event during the morning of the 18th and took great pleasure in being shown round the event and engaging with the public. This is only the second time the City Mayor has attended a BioBlitz confirming that Aylestone Meadows not only gained the support of the local community but that of the wider community.

Around the basecamp displays were erected from conservation organisations inviting the public to gain more information about their causes and promote what they are doing. This worked well encouraging the passers-by to look more closely at the BioBlitz as not just an event but as something more powerful for nature.

The public were also invited to take part in a series self-guided walks that have been mapped out to encourage the public to take part in and record species (Appendices 1 - 4). The number of participants on the walks was lower than expected. Nevertheless, by far the woodland blitz was the most popular followed by the dog walkers' 50 species challenge. The popularity of the woodland blitz is due to its location by the basecamp which would have been more convenient for participants to complete. Aylestone is often used by dog walkers representing the popularity of this walk; furthermore volunteers were tasked to encourage members of the public to take part in this blitz further accounting for the increased numbers.

The two self-guided walks that were not as popular were the wetland and wildflower blitzes. This is thought to be due to the poor weather playing a role and that the aforementioned blitzes were furthest from the basecamp and covered a big expanse of the meadows. In addition to this, volunteer and staff time could not be allocated to promoting these two walks. However, the persons that took part in the self-guided walks greatly appreciated the work that went into them and how useful they were to look for wildlife in those habitats.

5.2 Species Groups

The overall species count of 447 missed the species target which is below all other years 653, 506 and 467 retrospectively, especially as the 500 target was expected to exceed. The weather in the lead up to the event can partly be attributed to the low species count as early 2013 was unusually cold and wet which continued up to and including the event.

5.2.1 Birds

A total of 52 species of bird were recorded for the duration of the BioBlitz. Most were common species found in and around Leicester however, there were some more unusual species recorded by the specialists, examples of this include Great spotted Woodpecker and Tree creeper associated with woodland habitats while a single Skylark was recorded more suited to arable farms.

Only nine species are associated with wetland habitats, while all other species are associated with woodland. This is unusual due to Aylestone Meadows lying mostly within a flood plain. The route of the guided walks circulated along the River Soar, across the board walk and through the woodland covering a broad mix of habitats. The location of the basecamp was situated within the woodland where a large number of bird species were also recorded which would have added to the woodland bird total.

The majority of the records were submitted by the experts who led two guided walks around the meadows, nevertheless keen amateurs recorded bird species on recording sheets that were then later verified by the experts. All participants that attended the walks were supplied with binoculars and encouraged to look and listen for the surrounding birds. Throughout the event records of birds were still noted and added to the total.

5.2.2 Invertebrates

5.2.2.1 Aquatic Invertebrates

The school children, girl guides and public made this activity one of the most popular as the pond was located just off the Grand Union Canal and next to the basecamp catching the most foot-fall from passers-by.

The station was operated by LCC staff at all times who were trained in identifying aquatic invertebrate species making the pond dipping more enjoyable and interesting for the participants and contributing to its popularity. It was suggested on the second day of the BioBlitz that a second display bucket from another pond was to be used for display purposes to ease the pressure on the pond. This second display gave a good indication for what the children were going to find in the pond and compare what they caught.

A total of 39 species of aquatic invertebrates were identified including several species of Cased caddisfly larva. Officers running the pond dipping event did comment on how unusual the larva was and that further identification would need to be carried out to establish what species they were.

Experts from the University of Leicester sampled two locations across Aylestone Meadows: Pebble Beach and an area around Pack Horse Bridge. These two locations were readily accessible and were good example of shallow, fast flowing water along the River Soar.

Samples were taken and examined back at the basecamp with microscopes and identification guides.

It was noted that majority of the species were found in organic debris and gravel or silted areas which is indicative of the habitats sampled including: Jenkins spire snail, midges and Freshwater Shrimp. Furthermore Mayfly nymphs was found feeding off the submerged gravels were species which are again indicative of clean flowing water. The largest group of invertebrates found in the sample locations were Trichoptera the Cased caddisfly larva with 11 species. This assemblage indicates the water quality of the River Soar through Aylestone Meadows is clean, free of debris and high quality. Majority of the Trichoptera were found in organic debris which Cased caddisfly larva species construct their cases from.

5.2.2.2 Other Invertebrates

The second largest group of invertebrates recorded are the beetles including two species of Ladybird the Kidney-spot Ladybird and the 7-spot Ladybird with several species of ground beetle associated with riparian habitats which are commonly found around Leicestershire and Rutland.

The third largest group identified at the BioBlitz were the Mollusca which consisted of four species of slugs and ten species of snail. The species found common to damp or wet habitats included Great ramshorn snail and Great pond snail while in contrast to this the Kentish Garden Snail is primarily found in woodlands and hedgerows. This species assemblage is not uncommon in areas such as Aylestone Meadows consisting of wet and damp areas with scatterings of woodland, long grasses and shrubs.

5.2.2.3 Moths

Light traps were placed at strategic locations around the basecamp and a total of 15 species of moths were caught. These included the common species of Timothy Tortrix and Waved Umber associated with woodlands, herbaceous plants and damp areas in which the traps were set. There was one new record for Leicester and Rutland the Chocolate-tip Moth. This is a species that has a southern distribution due to the warmer climates. It is believed to be migrating northwards due to climate change and the high prevalence of Aspen trees which are the moths' food source.

The weather in the lead up to the event is believed to have contributed to the lower number of species recorded this year compared with previous years. Several of the county recorders reported little or no species recorded in their own traps outside of the event around this time suggesting that Aylestone Meadows was not unusual in this way.

5.2.3 Plants

The majority of the plants were recorded by the BSBI with inputs from local specialists and members of the public. Only native species to the UK were included in the Bioblitz total which included flowering plants, algae, mosses, lichen, ferns and fungi.

Plants accounted for 45% of the overall Bioblitz total on the day with 202 species. Plants were the highest type of species recorded on the day for several reasons. The BSBI generally had more recorders than the other specialists' and were able to focus on a greater survey effort. Furthermore, members of the public noted more vegetation than insects, birds or amphibians due to the abundance of vegetation at the reserve and the roaming nature of other species.

In particular the lower plants, 33 different species of bryophyte were recorded by a local expert which may have otherwise have been missed. Species for example Bird's-claw Beard-moss and Grey-cushioned Grimmiid are known for growing on concrete or brick substrates and found along the Pack Horse Bridge and brickwork, while other species sensitive to air pollution and primarily grow on bark of trees include Forked veilwort and Dilated scalewort.

A total of 21 species of fungi were recorded across the meadows. It was noted by the recorders that May is a difficult time of year for recording fungi as their fruiting bodies are not present. Furthermore, the meadows are fertile grasslands and there is little mature woodland which is an indication of more diverse types of fungi.

The vegetation has been broken down into three main groups: grasses, sedges, rushes, flowering plants, trees and shrubs. Out of these broad groups the wetland species present include 14 species of grass, sedge or rush, 20 species of flowering plants and 11 tree species. This represents 45 species of plant that are associated directly with damp or wet habitats for which the meadows are frequently flooded. Many of the species recorded were located along water ways, wetland or meadows that are damp majority of the year. Other

plant species that have been recorded and indicative of meadow areas include: Common knapweed, Meadowsweet, Lady's bedstraw, Birds foot trefoil and Meadow buttercup totalling 37 specific species. The species richness recorded across the meadows is indicative of the diverse range of habitats across the meadows and through traditional cattle grazing and meadow management.

Another species that was noted is the Native black poplar which is a rare occurrence in Leicester and Leicestershire without it hybridising with other poplar species.

5.2.4 Mammals

The total number of mammal species recorded across the meadows was 11 which included bats, badgers and rabbits. The number of mammals excluding bats totalled 9. Many of the species recorded across the site were identified by field signs for example faeces, setts and prints.

A single Wood mouse was caught during the event despite the amount of traps set out and the known presence of more small mammals. This is thought to be down to the cold nights making small rodents less mobile and the unfamiliarity of the traps. Field signs of other mammals were also considered and added to the species total for example spraints from Otters, holes in banks indicative of rats and faeces deposited by fox all verified by the county recorder.

The two species of bats: Common pipistrelle and Soprano pipistrelle were noted on the guided bats walks along the River Soar and Grand Union Canal. These species were recorded foraging along the waterways and into the woodland which forage over water for insects. It was hoped more species of bat would have been recorded, however due to the damp and cold conditions few signs of bats were observed. Daubenton bats are associated with ponds, canals and rivers making the reserve a suitable habitat for them. Nevertheless no Daubenton bats were recorded which may be due to possible roosting locations as they prefer to roost in caves, tunnels or bridges. Furthermore the lack of insect activity displayed by the moth trapping could indicate the reduced numbers of all bats present.

5.2.5 Amphibians and Reptiles

The number of amphibious species was particularly low especially considering the location of the ponds and habitats available. The guided amphibian walks aimed to find common species for example Smooth newt and Common frog. However, only the common toad and frog tadpoles were recorded in the pond. On the Saturday a single male Smooth newt was captured by the pond dipping activity which is considered surprising as there have been records of newts in this pond previously.

Furthermore the location of this pond situated next to the Grand Union Canal, a major corridor for commuting species and would have expected higher numbers of amphibious life. This could indicate the pond is no longer suitable for amphibians and would benefit from future management.

Aylestone Meadows is well connected to the wider countryside and has easy access to wetland habitats, meadows and woodlands which are ideal for reptile species. However, no evidence of grass snakes was found and other general species of amphibians, this may be due to the cold weather and damp conditions making reptiles less likely to be seen.

5.2.6 Common recorded species

The number of common species recorded by members of the public was generally good with the most recorded species bramble and black bird. Some of the less common species recorded by the public were: lords and ladies, common frog and blue tit.

The most common vegetation species identified were Bramble, Bluebell and Buttercup. One surprising observation was that of Japanese knotweed which was recorded twice by members of the public. This could indicate an increased public knowledge of Japanese knotweed. The highest recorded fauna species were: black bird, wood pigeon and magpie. This gives a good indication of the level of people's knowledge and understanding of their local environment which figure 4.6 proves as high. The harder species to identify include annual meadow grass, dragonfly nymph and swallow which are more specialised species and require a more in depth knowledge of identification.

6 Conclusion

6.1 How Did It Go?

The feedback from the schools, members of the public and specialists attending the event reported it was another successful event and were grateful to be invited and involved at Aylestone Meadows.

The guided walks in general were very popular and enjoyed by all who took part in them. The bat walk in particular was oversubscribed which made the walk difficult. However, in future it would be beneficial to have more control over the booking system, reducing the difficulties of the walk.

The guided walk leaders felt their specialisms were highly appreciated and imparting their knowledge to the younger generations is essential in maintaining interest in the natural environment. Furthermore their findings could contribute to management of the site and further develop the species assemblage on site.

This was the first Bioblitz event for the current organisers and for some of the partner organisations but the event was enjoyed by all, with interaction with specialists and the public alike on such a detailed level.

Many native species to the UK were identified over the 24 hour survey and their presence confirmed at the site. There was a regional first in the chocolate tip moth and many interesting plants including the native black poplar. This success is due to the many local experts, specialists and volunteers that took part in the event.

Despite the slightly lower species numbers, findings from the event have proven that Aylestone Meadows has a diverse range of habitats with species characteristic of those habitats and continue to be a heaven for wildlife even when the weather is not at its best.

6.2 Summary of Bioblitz event – Mop-up session

The 2013 BioBlitz benefited from a ‘mop up session’ in which the organisers of the event got together to go over what went well and what could be improved on for future events. A summary of the main areas of improvement and what worked well are listed below.

Table 2: Mop up Session

Aylestone Bioblitz – What Worked Well	Aylestone Bioblitz – Improvements in forthcoming events
Schools were a great success however, challenging during the Bioblitz	Suggested separate event with the schools in the lead up to the Bioblitz
The pupils and staff thought it was well organised and enjoyed the day	Good variety of activities and displays
Evening guided walks – extremely well attended and oversubscribed	More stringent booking on system
Feedback from the self-guided walks were well designed and thought out	
Good publicity for the event through the local and national media	Engage neighbouring wards in attending the event
Staff organisation during the event	More staff to cover the essentials of running the event
Location of basecamp very central to the meadows offering good access to the reserve	Better signage for the event both from the main roads and within future areas
Use of an indoor space for displays and the staff and public to relax	
Plants as giveaways encouraged public participation	

6.3 Recommendations

The following recommendations are made resulting from the Bioblitz and data collected:

- All data be forwarded to Leicestershire and Rutland Environmental Record Centre (LRERC) and for records to be updated electronically and made publicly available at an agreed resolution so as to protect sensitive records;
- All County recorders to be provided with a final list of species and tetrads where located;
- Copies of the report be circulated electronically to nature conservation groups and organisations; local authorities and individual recorders;
- The report is used to inform on future management at the park.

6.4 Future Management of the Reserve

The following recommendations are referring to improving the connectivity of Aylestone Meadows and conserve wildlife while promoting education opportunities and public participation.

The following recommendations are suggested in conjunction with the 2013 Aylestone Meadows management plan which is currently being updated.

Trees

- Retain mature native species of trees where ever possible; prolong life of tree through appropriate management when necessary and increase wildlife value of trees through pollarding and specialist tree surgeon techniques that will create fissures and cavities that can be used as roost sites for bats and birds;
- Retain ivy on trees where ever possible as this is an important habitat for invertebrates and nesting/roosting sites for birds and bats. If not possible to retain on all trees, ivy should be cut on rotation around the park and ivy on some trees be retained without regular management and allowed to develop into mature, dense ivy;
- Retain dead or dying trees where possible to encourage populations of fungi;
- Consider value of lichens on trees and manage epicormic growth to retain an open and light structure for lichens to thrive;
- Retention of trees along the Grand Union Canal and River Soar where possible to maintain habitats and foraging areas for birds and bats.

- Woodland spinneys to be thinned and understorey species to be planted increasing species diversity;

Plants

- Retain areas of meadow with the continuation of the cutting and baling to maintain species-rich grassland;
- Continuation of the cattle grazing on the wetland to main the species-rich sward;
- Extending the area the Longhorn cattle graze would benefit areas of grassland that are starting to be overcome by tall ruderals;
- Monitor grazing of species-rich grasslands and other areas grazed by tenants to reduce damage to those sites;

Birds

- Retain ivy on trees for nesting habitat;
- Improve the shrub layer of vegetation for nesting birds within the woodlands by understory planting;
- Place boxes of different types on telegraph poles that are appropriately sited;
- Monitor bird populations throughout the site;

Mammals

- Retain mature trees where possible to increase bat roosting sites;
- Retain areas of rough grassland in appropriate areas around the site e.g. woodland area around Canal Street;
- Monitor use of site by large mammals such as badger, otter and fox;

Insects

- Maintain a mosaic of meadows and wet grassland to encourage a greater diversity of invertebrates associated with a range of host plants;
- Create habitat piles in appropriate areas within the woodlands to encourage more insect diversity;

Invertebrates

- Monitor water quality, along the River Soar;
- Monitor aquatic vegetation, particularly non-native invasive species such as Himalayan balsam. Arrange periodic removal with Riverside Team;
- Monitor build-up of silt and sediment in water courses and small water bodies; manage these areas on rotation through the removal of not more than 30 % at any one time during the autumn/winter. Seek advice from NCO before works planned;

Partnerships

- Maintain relationships with the Environment Agency and Canal and Rivers Trust and any potential works carried out;
- Maintain a good working relationship with local businesses on the meadows such as St Andrews Football Club and Kings Lock Tea Rooms;
- Maintain a good working relationship with local volunteer groups such as, Forest Schools, TCV and AMAS;

6.5 Opportunities for the Future

The successes of previous BioBlitzes are still renowned and support for the event is ever increasing. This year the City Major attended with both ward Councillors Porter and Clarke and it is hoped that in following years the same support will be received.

The next Bioblitz will be held at Western Park and the organisers will continue to build relationships with partners and other organisations that support the event, building on the previous year's success.

All the information gathered from events like this are vital for the continuation of the green network and the current status of the flora and fauna in those areas and what can be done to mitigate the impacts on nature in this semi-urban environment.

With each BioBlitz event further education and awareness are raised to the public and ways to safeguard the wildlife made more available which meets the key aims to any Bioblitz.

Appendices

AYLESTONE MEADOWS

BioBlitz Leicester

Dog Walkers 50 Species Challenge



- Aylestone Meadows boundary
- City Boundary
- Access Point
- ⋯ Footpath
- ⋯ Cycleway/Footpath
- ▤ Steps
- Boardwalk
- P Parking
- 🚶🚲 Great Central Way pedestrian and cycleway
- Nature Reserve
- Grazing Fields
- Private land with no public access

**Please turn over for
species check list**





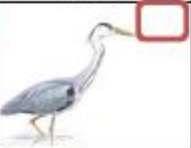

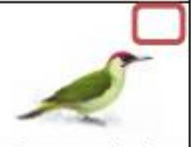















**PLEASE KEEP TO THE HARD FOOTPATHS AND MOWN AREAS
THANK YOU**

Help us meet the challenge!

We have to find 500 species of wildlife and only have 24 hours in which to do it.

BioBlitz Leicester

On your walk you may see some of the flora and fauna below – tick the box if you see them

Birds				
				
Wood pigeon	Black bird	Heron	Magpie	Green woodpecker
Plants				
				
Bramble	Ivy	Selfheal	Lords & Ladies	Buttercup
Plants				
				
Bluebell	Hawthorn	Dogwood	Holly	Forget-me-not
Fauna				
				
Earwig	Ladybird	Grey squirrel	Speckled wood	Fox

Please record any more wildlife you see below:

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Hand back your sheet at the Basecamp and win a prize

Fill in your details and enter the competition to find the most species of wildlife in 24 hours (if completing more than one sheet please make sure they are attached together)

Name: Tel.no:

Email:

Prizes awarded evening of Thursday 6th June 2013

Appendix 2 – Wildflower Blitz













AYLESTONE MEADOWS

BioBlitz

Leicester

Wildflower Blitz



-  Aylestone Meadows boundary
-  City Boundary
-  Access Point
-  Footpath
-  Cycleway/Footpath
-  Steps
-  Boardwalk
-  Parking
-  Great Central Way pedestrian and cycleway
-  Nature Reserve
-  Grazing Fields
-  Private land with no public access

Please turn over for spotting as many types of species as you can























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We have to find 500 species of wildlife and only have 24 hours in which to do it.

BioBlitz Leicester

On your walk you may see some of the flora and fauna below – tick the box if you see them

Birds				
				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Goldfinch	Reed bunting	Blue tit	Kestrel	Swallow
Plants				
				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Annual Meadow Grass	Dandelion	Selfheal	Teasel	Meadow buttercup
Plants				
				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ox-eye daisy	Birdsfoot trefoil	Yorkshire Fog	Red Poppy	Stinging Nettle
Insects				
				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lacewing	Peacock butterfly	Marmalade Hoverfly	Aphid	7-spot ladybird

Please record any more wildlife you see below:

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Hand back your sheet at the Basecamp and win a prize

Fill in your details and enter the competition to find the most species of wildlife in 24 hours (if completing more than one sheet please make sure they are attached together)

Name: Tel.no:

Email:

Prizes awarded evening of Thursday 6th June 2013













Appendix 3 – Wetland Blitz

AYLESTONE MEADOWS

BioBlitz Leicester

Wetland Blitz



-  Aylestone Meadows boundary
-  City Boundary
-  Access Point
-  Footpath
-  Cycleway/Footpath
-  Steps
-  Boardwalk
-  Parking
-  Great Central Way pedestrian and cycleway
-  Nature Reserve
-  Grazing Fields
-  Private land with no public access

Please turn over for spotting as many types of species as you can























**PLEASE KEEP TO THE HARD FOOTPATHS AND MOWN AREAS
THANK YOU**

Help us meet the challenge!

We have to find 500 species of wildlife and only have 24 hours in which to do it.

BioBlitz Leicester

On your walk you may see some of the flora and fauna below – tick the box if you see them

Birds				
				
Great crested grebe	Canada goose	Grey heron	Kingfisher	Mute swan
Trees & Plants				
				
Marsh marigold	Yellow water-lily	Silverweed	Forget-me-not	Meadow buttercup
Insects				
				
Common blue damselfly	Marmalade Hoverfly	White-tailed Bumblebee	Migrant hawk dragonfly	Small tortoiseshell
Pondlife				
				
Dragonfly nymph	Common frog	Water boatman	Garden snail	Smooth newt

Please record any more wildlife you see below:

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Hand back your sheet at the Basecamp and win a prize

Fill in your details and enter the competition to find the most species of wildlife in 24 hours (if completing more than one sheet please make sure they are attached together)

Name: Tel.no:

Email:

Prizes awarded evening of Thursday 6th June 2013

Appendix 4 – Woodland Blitz

AYLESTONE MEADOWS

BioBlitz Leicester

Woodland Blitz



- Aylestone Meadows boundary
- City Boundary
- Access Point
- ⋯ Footpath
- ⋯⋯ Cycleway/Footpath
- ▢ Steps
- Boardwalk
- P Parking
- 🚶🚲 Great Central Way pedestrian and cycleway
- Nature Reserve
- Grazing Fields
- Private land with no public access

Please turn over for spotting as many types of species as you can























**PLEASE KEEP TO THE HARD FOOTPATHS AND MOWN AREAS
THANK YOU**

Help us meet the challenge!

We have to find 500 species of wildlife and only have 24 hours in which to do it.

BioBlitz Leicester

On your walk you may see some of the flora and fauna below – tick the box if you see them

Birds				
				
Robin	Black bird	Tree creeper	Chaffinch	Green woodpecker
Plants				
				
Bramble	Ivy	Selfheal	Lords & Ladies	Guelder rose
Plants				
				
Bluebell	Lesser Celandine	Dogwood	Holly	Forget-me-not
Insects				
				
Earwig	Hoverfly	Violet ground beetle	Speckled wood	Orange tip butterfly

Please record any more wildlife you see below:

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Hand back your sheet at the Basecamp and win a prize

Fill in your details and enter the competition to find the most species of wildlife in 24 hours (if completing more than one sheet please make sure they are attached together)

Name: Tel.no:

Email:

Prizes awarded evening of Thursday 6th June 2013

Appendix 5 - Lists of Species Recorded during Bioblitz 2013 at Aylestone Meadows

Table 1 – Birds – Coded amber and red conservation status

Scientific name	Common name	Group	Group Detail
<i>Accipiter nisus</i>	Sparrowhawk	Birds	Birds
<i>Acrocephalus schoenobaeni</i>	Sedge warbler	Birds	Birds
<i>Acrocephalus scirpaceus</i>	Reed warbler	Birds	Birds
<i>Aegithalos caudatus</i>	Long tailed tit	Birds	Birds
<i>Alauda arvensis</i>	Skylark	Birds	Birds
<i>Anas platyrhynchos</i>	Mallard	Birds	Birds
<i>Apus apus</i>	Swift	Birds	Birds
<i>Ardea cinerea</i>	Grey heron	Birds	Birds
<i>Branta canadensis</i>	Canada goose	Birds	Birds
<i>Buteo buteo</i>	Buzzard	Birds	Birds
<i>Carduelis carduelis</i>	Goldfinch	Birds	Birds
<i>Carduelis chloris</i>	Greenfinch	Birds	Birds
<i>Certhia familiaris</i>	Tree creeper	Birds	Birds
<i>Columba livia (Domestica)</i>	Feral pigeon	Birds	Birds
<i>Columba palumbus</i>	Wood pigeon	Birds	Birds
<i>Corvus corone</i>	Carrion crow	Birds	Birds
<i>Corvus monedula</i>	Jackdaw	Birds	Birds
<i>Cygnus olor</i>	Mute swan	Birds	Birds
<i>Delichon urbica</i>	House martin	Birds	Birds
<i>Dendrocopos major</i>	Great spotted woodpecker	Birds	Birds
<i>Egretta garzetta</i>	Little egret	Birds	Birds
<i>Emberiza schoeniclus</i>	Reed bunting	Birds	Birds
<i>Erithacus rubecula</i>	Robin	Birds	Birds
<i>Falco tinnunculus</i>	Kestrel	Birds	Birds
<i>Fringilla coelebs</i>	Chaffinch	Birds	Birds
<i>Fulica atra</i>	Coot	Birds	Birds
<i>Gallinula chloropus</i>	Moorhen	Birds	Birds
<i>Garrulus glandarius</i>	Jay	Birds	Birds
<i>Hirundo rustica</i>	Swallow	Birds	Birds
<i>Larus canus</i>	Common gull	Birds	Birds
<i>Motacilla alba</i>	Pied wagtail	Birds	Birds
<i>Parus caeruleus</i>	Blue tit	Birds	Birds
<i>Parus major</i>	Great tit	Birds	Birds
<i>Passer domesticus</i>	House sparrow	Birds	Birds
<i>Phalacrocorax carbo</i>	Cormorant	Birds	Birds
<i>Phasianus colchicus</i>	Pheasant	Birds	Birds
<i>Phylloscopus collybita</i>	Chiffchaff	Birds	Birds
<i>Phylloscopus trochilus</i>	Willow warbler	Birds	Birds
<i>Pica pica</i>	Magpie	Birds	Birds
<i>Picus viridis</i>	Green woodpecker	Birds	Birds
<i>Prunella modularis</i>	Dunnock	Birds	Birds
<i>Pyrrhula pyrrhula</i>	Bullfinch	Birds	Birds
<i>Streptopelia decaocto</i>	Collared dove	Birds	Birds
<i>Strix aluco</i>	Tawny owl	Birds	Birds
<i>Sturnus vulgaris</i>	Starling	Birds	Birds
<i>Sylvia atricapilla</i>	Blackcap	Birds	Birds
<i>Sylvia borin</i>	Garden warbler	Birds	Birds
<i>Sylvia communis</i>	Whitethroat	Birds	Birds
<i>Troglodytes troglodytes</i>	Wren	Birds	Birds
<i>Turdus merula</i>	Blackbird	Birds	Birds
<i>Turdus philomelos</i>	Song thrush	Birds	Birds
<i>Turdus viscivorus</i>	Mistle thrush	Birds	Birds

Table 2 – Invertebrates

Scientific name	Common name	Group	Group - Detail
<i>Hydracarina sp</i>	Water mites	Invertebrates	Acarina
<i>Aceria macrorhynchus</i>	Sycamore gall	Invertebrates	Acarina
<i>Gammarus pulex</i>	Freshwater shrimp	Invertebrates	Amphipoda
<i>Eisenia fetida</i>	Red worm (Brandling worm)	Invertebrates	Annelida
<i>Lumbricus sp</i>	Earthworm	Invertebrates	Annelida
<i>Daphnia</i>	Water flea	Invertebrates	Branchiopoda
<i>Agonum fuliginosum</i>	Ground Beetle	Invertebrates	Coleoptera
<i>Anchomenus dorsalis</i>	Ground Beetle	Invertebrates	Coleoptera
<i>Badister bullatus</i>		Invertebrates	Coleoptera
<i>Bembidion biguttatum</i>		Invertebrates	Coleoptera
<i>Bembidion clarkii</i>	Ground Beetle	Invertebrates	Coleoptera
<i>Chilocorus renipustulatus</i>	Kidney-spot Ladybird	Invertebrates	Coleoptera
<i>Coccinella septempunctata</i>	7-spot Ladybird	Invertebrates	Coleoptera
<i>Dromius quadrimaculatus</i>	Ground Beetle	Invertebrates	Coleoptera
<i>Dytiscidae sp</i>	Diving beetle	Invertebrates	Coleoptera
<i>Dytiscus marginalis</i>	Great diving beetle larva	Invertebrates	Coleoptera
<i>Gyrinus substriatus</i>	Whirligig beetle	Invertebrates	Coleoptera
<i>Nedyus quadrimaculatus</i>	Small Nettle Weevil	Invertebrates	Coleoptera
<i>Ophonus rufibarbis</i>	Ground Beetle	Invertebrates	Coleoptera
<i>Oxypselaphus obscurus</i>	Ground Beetle	Invertebrates	Coleoptera
<i>Paranchus albipes</i>	Ground Beetle	Invertebrates	Coleoptera
<i>Platynus assimilis</i>	Ground Beetle	Invertebrates	Coleoptera
<i>Polydrusus cervinus</i>	Ground Beetle	Invertebrates	Coleoptera
<i>Pterostichus strenuus</i>	a millipede	Invertebrates	Coleoptera
<i>Orchesella cincta</i>	a springtail	Invertebrates	Collembola
<i>Tomocerus longicornis</i>	a springtail	Invertebrates	Collembola
<i>Forficula auricularia</i>	Earwig	Invertebrates	Dermaptera
<i>Cylindroiulus caeruleocinctus</i>	a millipede	Invertebrates	Diplopoda
<i>Cylindroiulus punctatus</i>	a millipede	Invertebrates	Diplopoda
<i>Chironomus sp</i>	Midge larva - red	Invertebrates	Diptera
<i>Simulium sp</i>	Black-fly larvae	Invertebrates	Diptera
<i>Tipula oleracea</i>	Cranefly	Invertebrates	Diptera
<i>Baetis sp</i>	Mayfly nymph	Invertebrates	Ephemeroptera
<i>Caenis sp</i>	Crawling mayfly nymph	Invertebrates	Ephemeroptera
<i>Centroptilum luteolum</i>	Mayfly nymph	Invertebrates	Ephemeroptera
<i>Erpobdella octoculata</i>	Leech	Invertebrates	Glossiphoniidae
<i>Glossiphonia complanata</i>	Leech	Invertebrates	Glossiphoniidae
<i>Corixa punctata</i>	Lesser water boatman	Invertebrates	Hemiptera
<i>Corixidae sigara</i>	Water boatman	Invertebrates	Hemiptera
<i>Gerris lacustris</i>	Pond skater	Invertebrates	Hemiptera
<i>Apis mellifera</i>	Honey Bee	Invertebrates	Hymenoptera
<i>Biorhiza pallida</i>	Oak gall	Invertebrates	Hymenoptera
<i>Bombus terrestris</i>	Buff tailed bumblebee	Invertebrates	Hymenoptera
<i>Lasius niger</i>	Black ant	Invertebrates	Hymenoptera
<i>Vespula vulgaris</i>	Wasp (common)	Invertebrates	Hymenoptera

Scientific name	Common name	Group	Group - Detail
<i>Armadillidium vulgare</i>	Common Pill Woodlouse	Invertebrates	Isopoda
<i>Asellus aquaticus</i>	Freshwater hoglouse	Invertebrates	Isopoda
<i>Oniscus asellus</i>	Common shiny woodlouse	Invertebrates	Isopoda
<i>Philoscia muscorum</i>	Common stripped woodlouse	Invertebrates	Isopoda
<i>Porcellio scaber</i>	Common rough woodlouse	Invertebrates	Isopoda
<i>Anthocharis cardamines</i>	Orange tip butterfly	Invertebrates	Lepidoptera
<i>Abrostola tripartita</i>	Spectacle	Invertebrates	Lepidoptera
<i>Aglais urticae</i>	Small tortoiseshell	Invertebrates	Lepidoptera
<i>Agonopterix heracliiana</i>		Invertebrates	Lepidoptera
<i>Anthophila fabriciana</i>	Nettle-tap	Invertebrates	Lepidoptera
<i>Aphelia paleana</i>	Timothy Tortrix	Invertebrates	Lepidoptera
<i>Cabera pusaria</i>	Common White Wave	Invertebrates	Lepidoptera
<i>Chloroclysta siterata</i>	Red-green Carpet	Invertebrates	Lepidoptera
<i>Clostera curtula</i>	Chocolate-tip	Invertebrates	Lepidoptera
<i>Colostygia pectinataria</i>	Green Carpet	Invertebrates	Lepidoptera
<i>Epirrhoe alternata</i>	Common Carpet	Invertebrates	Lepidoptera
<i>Eupsilia transversa</i>	Satellite	Invertebrates	Lepidoptera
<i>Gonepteryx rhamni</i>	Brimstone butterfly	Invertebrates	Lepidoptera
<i>Inachis io</i>	Peacock	Invertebrates	Lepidoptera
<i>Menophra abruptaria</i>	Waved Umber	Invertebrates	Lepidoptera
<i>Orthosia gothica</i>	Hebrew Character	Invertebrates	Lepidoptera
<i>Orthosia incerta</i>	Clouded Drab	Invertebrates	Lepidoptera
<i>Pararge aegeria</i>	Speckled Wood	Invertebrates	Lepidoptera
<i>Pieris brassicae</i>	Large white	Invertebrates	Lepidoptera
<i>Pieris napi</i>	Green veined white	Invertebrates	Lepidoptera
<i>Pieris rapae</i>	Small white butterfly	Invertebrates	Lepidoptera
<i>Selenia tetralunaria</i>	Purple Thorn	Invertebrates	Lepidoptera
<i>Xylocampa areola</i>	Early Grey	Invertebrates	Lepidoptera
<i>Sialis lutaria</i>	Alder Fly	Invertebrates	Megaloptera
<i>Polydesmus inconstans</i>	Millipede	Invertebrates	Millipede
<i>Arion distinctus</i>	Common garden slug	Invertebrates	Mollusca
<i>Arion subfuscus</i>	Dusky slug	Invertebrates	Mollusca
<i>Cepaea nemoralis</i>	Banded snail	Invertebrates	Mollusca
<i>Cornu aspersum</i>	Garden Snail	Invertebrates	Mollusca
<i>Deroceras reticulatum</i>	Netted Slug	Invertebrates	Mollusca
<i>Helix aspersa</i>	Garden snail	Invertebrates	Mollusca
<i>Limax maximus</i>	Leopard slug	Invertebrates	Mollusca
<i>Lymnaea stagnalis</i>	Great pond snail	Invertebrates	Mollusca
<i>Monacha cantiana</i>	Kentish Garden Snail	Invertebrates	Mollusca
<i>Oxychilus cellarius</i>	Cellar glass-snail	Invertebrates	Mollusca
<i>Planorbarius corneus</i>	Great ramshorn snail	Invertebrates	Mollusca
<i>Potamopyrgus jenkinsii</i>	Jenkins spire snail	Invertebrates	Mollusca
<i>Trochulus hispidus</i>	Hairy Snail	Invertebrates	Mollusca
<i>Agrion Splendens</i>	Banded damoiselle nymph	Invertebrates	Odonata
<i>Calopteryx sp</i>	Beautiful damoiselle nymph	Invertebrates	Odonata
<i>Tubifex sp</i>	True worm	Invertebrates	Oligochaeta

Scientific name	Common name	Group	Group - Detail
<i>Glossosomatidae sp A</i>	Cased caddisfly larva	Invertebrates	Trichoptera
<i>Hydropsychidae</i>	Caseless caddis fly	Invertebrates	Trichoptera
<i>Lepidostomatidae</i>	Cased caddisfly larva	Invertebrates	Trichoptera
<i>Leptoceridae</i>	Cased caddisfly larva	Invertebrates	Trichoptera
<i>Leptoceridae sp</i>	Cased caddisfly larva	Invertebrates	Trichoptera
<i>Limnephilidae sp A</i>	Cased caddisfly larva	Invertebrates	Trichoptera
<i>Limnephilidae sp B</i>	Cased caddisfly larva	Invertebrates	Trichoptera
<i>Limnephilidae sp C</i>	Cased caddisfly larva	Invertebrates	Trichoptera
<i>Mystacides sp</i>	Cased caddisfly larva	Invertebrates	Trichoptera
<i>Sericostomatidae sp A</i>	Cased caddisfly larva	Invertebrates	Trichoptera
<i>Sericostomatidae sp B</i>	Cased caddisfly larva	Invertebrates	Trichoptera
<i>Valvata piscinalis</i>	European stream snail	Invertebrates	Valvatoidea
<i>Pisidium sp</i>	Orb cockle shell	Invertebrates	Veneroida
<i>Zygoptera sp</i>	Damselfly nymph	Invertebrates	Zygoptera
<i>Enallagma cyathigerum</i>	Common blue damselfly	Invertebrates	Zygoptera
<i>Pyrrhosoma nymphula</i>	Large Red Damselfly	Invertebrates	Zygoptera

Table 3 – Lower plants

Scientific Name	Common Name	Group	Group Detail
<i>Algae sp</i>		Lower Plants	Algae
<i>Trentepohlia aurea</i>		Lower Plants	Algae
<i>Acrocladium cuspidatum</i>		Lower Plants	Bryophytes
<i>Amblystegium serpens</i>		Lower Plants	Bryophytes
<i>Barbula unguicula</i>		Lower Plants	Bryophytes
<i>Brachythecium rutabulum</i>		Lower Plants	Bryophytes
<i>Bryum argenteum</i>		Lower Plants	Bryophytes
<i>Bryum capillare</i>		Lower Plants	Bryophytes
<i>Bryum dichotomum</i>		Lower Plants	Bryophytes
<i>Ceratodon purpureus</i>		Lower Plants	Bryophytes
<i>Conocephalum conicum agg.</i>		Lower Plants	Bryophytes
<i>Cryphaea heteromalla</i>		Lower Plants	Bryophytes
<i>Didymodon sinuosus</i>		Lower Plants	Bryophytes
<i>Fontinalis antipyretica</i>		Lower Plants	Bryophytes
<i>Frullania dilatata</i>		Lower Plants	Bryophytes
<i>Grimmia pulvinata</i>		Lower Plants	Bryophytes
<i>Hypnum cupressiforme s.l.</i>		Lower Plants	Bryophytes
<i>Hypnum resupinatum</i>		Lower Plants	Bryophytes
<i>Kindbergia praelonga</i>		Lower Plants	Bryophytes
<i>Leptodictyum riparium</i>		Lower Plants	Bryophytes
<i>Metzgeria furcata</i>		Lower Plants	Bryophytes
<i>Metzgeria violacea</i>		Lower Plants	Bryophytes
<i>Orthotrichum affine</i>		Lower Plants	Bryophytes
<i>Orthotrichum anomalum</i>		Lower Plants	Bryophytes
<i>Orthotrichum diaphanum</i>		Lower Plants	Bryophytes
<i>Orthotrichum pulchellum</i>		Lower Plants	Bryophytes
<i>Rhynchostegium murale</i>		Lower Plants	Bryophytes
<i>Schistidium crassipilum</i>		Lower Plants	Bryophytes

Scientific Name	Common Name	Group	Group Detail
<i>Syntrichia latifolia</i>		Lower Plants	Bryophytes
<i>Syntrichia montana</i>		Lower Plants	Bryophytes
<i>Syntrichia ruralis</i> ssp. <i>ruralis</i>		Lower Plants	Bryophytes
<i>Tortula muralis</i>		Lower Plants	Bryophytes
<i>Ulota phyllantha</i>		Lower Plants	Bryophytes
<i>Ulota</i> sp.		Lower Plants	Bryophytes
<i>Zygodon conoideus</i>		Lower Plants	Bryophytes
<i>Hypogymnia physodes</i>		Lower Plants	Lichens
<i>Lecanora chlarotera</i>		Lower Plants	Lichens
<i>Lecanora conizaeoides</i> f. <i>conizaeoides</i>		Lower Plants	Lichens
<i>Lecanora expallens</i>		Lower Plants	Lichens
<i>Lecidella elaeochroma</i> f. <i>elaeochroma</i>		Lower Plants	Lichens
<i>Leptogium gelatinosum</i>		Lower Plants	Lichens
<i>Melanelixia fuliginosa</i> subsp. <i>glabratula</i>		Lower Plants	Lichens
<i>Physcia tenella</i> subsp. <i>tenella</i>		Lower Plants	Lichens
<i>Xanthoria parietina</i>		Lower Plants	Lichens
<i>Xanthoria polycarpa</i>		Lower Plants	Lichens
<i>Annulohyphoxylon multiforme</i>	Birch Woodwart	Lower Plants	Fungi
<i>Auricularia auricula-judae</i>	Jelly Ear	Lower Plants	Fungi
<i>Auricularia mesenterica</i>	Tripe Fungus	Lower Plants	Fungi
<i>Byssomerulius corium</i>	Netted Crust	Lower Plants	Fungi
<i>Callorina neglecta</i>		Lower Plants	Fungi
<i>Coriolus versicolor</i>	Many zoned polypore	Lower Plants	Fungi
<i>Daedaleopsis confragosa</i>	Blushing bracket	Lower Plants	Fungi
<i>Daldinia concentrica</i>	King Alfred's Cakes	Lower Plants	Fungi
<i>Diatrype stigma</i>	Common Tarcrust	Lower Plants	Fungi
<i>Fomes fomentarius</i>	Hoof Fungus	Lower Plants	Fungi
<i>Hypoxylon fuscum</i>	Hazel Woodwart	Lower Plants	Fungi
<i>Lachnum virgineum</i>		Lower Plants	Fungi
<i>Leptosphaeria acuta</i>		Lower Plants	Fungi
<i>Phellinus igniarius</i>	Willow Heart rot	Lower Plants	Fungi
<i>Polyporus squamosus</i>	Dryads saddle	Lower Plants	Fungi
<i>Psathyrella spadiceogrisea</i>	Spring Brittlestem	Lower Plants	Fungi
<i>Rosellinia aquila</i>		Lower Plants	Fungi
<i>Stereum hirsutum</i>	Hairy Curtain Crust	Lower Plants	Fungi
<i>Strobilurus tenacellus</i>	Pinecone Cap	Lower Plants	Fungi
<i>Taphrinaalni</i>	Alder Tongue	Lower Plants	Fungi
<i>Triphragmium ulmariae</i>	Meadowsweet Rust Fungus	Lower Plants	Fungi

Table 4a – Flowering plants

Scientific name	Common name	Group	Group Details
<i>Achillea millefolium</i>	Yarrow	Plants	Flowering Plants
<i>Aegopodium podagraria</i>	Ground elder	Plants	Flowering Plants
<i>Alisma lanceolatum</i>	Narrow-leaved water plantain	Plants	Flowering Plants
<i>Alliaria petiolata</i>	Garlic mustard	Plants	Flowering Plants
<i>Allium ursinum</i>	Ramsons	Plants	Flowering Plants
<i>Angelica sylvestris</i>	Wild angelica	Plants	Flowering Plants
<i>Antirrhinum orontium</i>	Lesser snapdragon	Plants	Flowering Plants
<i>Aquilegia vulgaris</i>	Common columbine	Plants	Flowering Plants
<i>Arctium minus</i>	Lesser burdock	Plants	Flowering Plants
<i>Armoracia rusticana</i>	Horse radish	Plants	Flowering Plants
<i>Artemisia vulgaris</i>	Mugwort	Plants	Flowering Plants
<i>Arum maculatum</i>	Lords and ladies	Plants	Flowering Plants
<i>Asplenium adiantum-nigrum</i>	Black spleenwort	Plants	Flowering Plants
<i>Asplenium ruta-muraria</i>	Wall rue	Plants	Flowering Plants
<i>Asplenium trichomanes</i>	Maidenhair spleenwort	Plants	Flowering Plants
<i>Atropa belladonna</i>	Deadly nightshade	Plants	Flowering Plants
<i>Barbarea intermedia</i>	Winter cress	Plants	Flowering Plants
<i>Bellis perennis</i>	Daisy	Plants	Flowering Plants
<i>Bryonia dioica</i>	White bryony	Plants	Flowering Plants
<i>Caltha palustris</i>	Marsh marigold	Plants	Flowering Plants
<i>Calystegia silvatica</i>	Large bindweed	Plants	Flowering Plants
<i>Capsella bursa-pastoris</i>	Shepherds purse	Plants	Flowering Plants
<i>Cardamine flexuosa</i>	Wavy bittercress	Plants	Flowering Plants
<i>Cardamine hirsuta</i>	Hairy bittercress	Plants	Flowering Plants
<i>Cardamine pratensis</i>	Cuckoo flower	Plants	Flowering Plants
<i>Centaurea nigra</i>	Common knapweed	Plants	Flowering Plants
<i>Cerastium fontanum ssp. vulgare</i>	Common Mouse-ear	Plants	Flowering Plants
<i>Chamerion angustifolium</i>	Rosebay willow herb	Plants	Flowering Plants
<i>Chenopodium sp</i>	Goosefoot sp	Plants	Flowering Plants
<i>Cirsium arvense</i>	Creeping thistle	Plants	Flowering Plants
<i>Cirsium vulgare</i>	Spear thistle	Plants	Flowering Plants
<i>Clematis vitalba</i>	Travellers joy	Plants	Flowering Plants
<i>Conopodium majus</i>	Pignut	Plants	Flowering Plants
<i>Crepis sp</i>	Hawk's beard sp	Plants	Flowering Plants
<i>Cymbalaria muralis</i>	Ivy leaved toadflax	Plants	Flowering Plants
<i>Cytisus scoparius</i>	Common broom	Plants	Flowering Plants
<i>Cytisus sp</i>	Broom sp	Plants	Flowering Plants
<i>Digitalis purpurea</i>	Foxglove	Plants	Flowering Plants
<i>Dipsacus fullonum</i>	Teasel	Plants	Flowering Plants
<i>Epilobium hirsutum</i>	Great willowherb	Plants	Flowering Plants
<i>Fallopia japonica</i>	Japanese knotweed	Plants	Flowering Plants
<i>Filipendula ulmaria</i>	Meadowsweet	Plants	Flowering Plants
<i>Galega officinalis</i>	Goat's rue	Plants	Flowering Plants
<i>Galium aparine</i>	Cleavers	Plants	Flowering Plants
<i>Galium verum</i>	Lady's bedstraw	Plants	Flowering Plants
<i>Geranium molle</i>	Doves foot cranesbill	Plants	Flowering Plants
<i>Geranium pratense</i>	Meadow cranesbill	Plants	Flowering Plants

Scientific name	Common name	Group	Group Details
<i>Geranium pusillum</i>	Small-flowered cranesbill	Plants	Flowering Plants
<i>Geranium robertianum</i>	Herb Robert	Plants	Flowering Plants
<i>Geum urbanum</i>	Herb Bennet / wood avens	Plants	Flowering Plants
<i>Glechoma hederacea</i>	Ground ivy	Plants	Flowering Plants
<i>Hedera helix</i>	Ivy	Plants	Flowering Plants
<i>Hedera helix hibernica</i>	Irish ivy	Plants	Flowering Plants
<i>Heracleum sphondylium</i> ssp <i>sphondylium</i>	Hogweed	Plants	Flowering Plants
<i>Hieracium sp</i>	Hawkweed sp	Plants	Flowering Plants
<i>Humulus lupulus</i>	Common hop	Plants	Flowering Plants
<i>Hyacinthoides hispanica</i>	Spanish bluebell	Plants	Flowering Plants
<i>Hyacinthoides non-scripta</i>	Bluebell	Plants	Flowering Plants
<i>Hyacinthoides x massartiana</i>	Hybrid bluebell	Plants	Flowering Plants
<i>Hypericum perforatum</i>	Perforate St John's wort	Plants	Flowering Plants
<i>Hypochaeris radicata</i>	Cat's ear	Plants	Flowering Plants
<i>Impatiens glandulifera</i>	Himalyan balsam	Plants	Flowering Plants
<i>Iris pseudoacorus</i>	Yellow iris	Plants	Flowering Plants
<i>Lamium album</i>	White deadnettle	Plants	Flowering Plants
<i>Lamium purpureum</i>	Red deadnettle	Plants	Flowering Plants
<i>Lapsana communis</i>	Nipplewort	Plants	Flowering Plants
<i>Lathyrus pratensis</i>	Meadow vetchling	Plants	Flowering Plants
<i>Leucanthemum vulgare</i>	Ox eye daisy	Plants	Flowering Plants
<i>Lotus corniculatus</i>	Birds foot trefoil	Plants	Flowering Plants
<i>Lotus pedunculatus</i>	Great bird's foot trefoil	Plants	Flowering Plants
<i>Lunaria annua</i>	Honesty	Plants	Flowering Plants
<i>Lycopus europaeus</i>	Gypsywort	Plants	Flowering Plants
<i>Lysimachia nummularia</i>	Creeping Jenny	Plants	Flowering Plants
<i>Malva moschata</i>	Musk mallow	Plants	Flowering Plants
<i>Matricaria recutita</i>	Chamomile	Plants	Flowering Plants
<i>Meconopsis cambrica</i>	Welsh poppy	Plants	Flowering Plants
<i>Melilotus officinalis</i>	Yellow mellitt	Plants	Flowering Plants
<i>Myosotis arvensis</i>	Field forget me not	Plants	Flowering Plants
<i>Myosotis sylvatica</i>	Wood forget me not	Plants	Flowering Plants
<i>Nuphar lutea</i>	Yellow water lily	Plants	Flowering Plants
<i>Partenocissus quinquefolia muroorum</i>	Virginia creeper	Plants	Flowering Plants
<i>Pentaglottis sempervirens</i>	Green alkanet	Plants	Flowering Plants
<i>Persicaria macrophylla</i>	Bistort	Plants	Flowering Plants
<i>Petasites hybridus</i>	Common Butterbur	Plants	Flowering Plants
<i>Plantago lanceolata</i>	Ribwort plantain	Plants	Flowering Plants
<i>Plantago major</i>	Greater plantain	Plants	Flowering Plants
<i>Potentilla anserina</i>	Silverweed	Plants	Flowering Plants
<i>Potentilla reptans</i>	Creeping cinquefoil	Plants	Flowering Plants
<i>Primula veris</i>	Cowslip	Plants	Flowering Plants
<i>Primula vulgaris</i>	Primrose	Plants	Flowering Plants
<i>Prunella vulgaris</i>	Selfheal	Plants	Flowering Plants
<i>Ranunculus acris</i>	Meadow buttercup	Plants	Flowering Plants
<i>Ranunculus bulbosus</i>	Bulbous buttercup	Plants	Flowering Plants

Scientific name	Common name	Group	Group Details
<i>Ranunculus ficaria</i>	Lesser celandine	Plants	Flowering Plants
<i>Ranunculus flammula</i>	Lesser spearwort	Plants	Flowering Plants
<i>Ranunculus fluitans</i>	Water crowfoot	Plants	Flowering Plants
<i>Ranunculus repens</i>	Creeping buttercup	Plants	Flowering Plants
<i>Rheum ribes</i>	Wild rhubarb	Plants	Flowering Plants
<i>Rosa canina</i>	Dog rose	Plants	Flowering Plants
<i>Rubus fruticosus</i>	Bramble	Plants	Flowering Plants
<i>Rumex acetosa</i>	Sorrel	Plants	Flowering Plants
<i>Rumex conglomeratus</i>	Clustered dock	Plants	Flowering Plants
<i>Rumex crispus</i>	Curled dock	Plants	Flowering Plants
<i>Rumex hydrolapathum</i>	Great water dock	Plants	Flowering Plants
<i>Rumex obtusifolius</i>	Broad leaved dock	Plants	Flowering Plants
<i>Rumex sanguineus</i>	Wood dock	Plants	Flowering Plants
<i>Scrophularia sp</i>	Figwort	Plants	Flowering Plants
<i>Senecio jacobaea</i>	Ragwort	Plants	Flowering Plants
<i>Senecio vulgaris</i>	Groundsel	Plants	Flowering Plants
<i>Silene dioica</i>	Red campion	Plants	Flowering Plants
<i>Sisymbrium officinale</i>	Hedge mustard	Plants	Flowering Plants
<i>Solanum dulcamara</i>	Bittersweet	Plants	Flowering Plants
<i>Solanum nigra</i>	Black nightshade	Plants	Flowering Plants
<i>Solidago canadensis</i>	Canadian goldenrod	Plants	Flowering Plants
<i>Sparganium erectum</i>	Branched bur-reed	Plants	Flowering Plants
<i>Stellaria media</i>	Common chickweed	Plants	Flowering Plants
<i>Symphytum alb</i>	Comfrey	Plants	Flowering Plants
<i>Taraxacum vulgare agg</i>	Dandelion	Plants	Flowering Plants
<i>Thlaspi arvense</i>	Field pennycress	Plants	Flowering Plants
<i>Torilis arvensis</i>	Common hedge parsley	Plants	Flowering Plants
<i>Trifolium pratense</i>	Red clover	Plants	Flowering Plants
<i>Trifolium repens</i>	White clover	Plants	Flowering Plants
<i>Tussilago farfara</i>	Coltsfoot	Plants	Flowering Plants
<i>Typha latifolia</i>	Reedmace	Plants	Flowering Plants
<i>Ulex europaeus</i>	Common gorse	Plants	Flowering Plants
<i>Urtica dioica</i>	Stinging nettle	Plants	Flowering Plants
<i>Veronica agrestis</i>	Green field speedwell	Plants	Flowering Plants
<i>Veronica beccabunga</i>	Brooklime	Plants	Flowering Plants
<i>Veronica chamaedrys</i>	Germander speedwell	Plants	Flowering Plants
<i>Veronica filiformis</i>	Slender speedwell	Plants	Flowering Plants
<i>Veronica hederifolia</i>	Ivy leaved speedwell	Plants	Flowering Plants
<i>Veronica serpyllifolia</i>	Thyme leaved speedwell	Plants	Flowering Plants
<i>Viburnum opulus</i>	Guelder rose	Plants	Flowering Plants
<i>Vicia cracca</i>	Tufted vetch	Plants	Flowering Plants
<i>Vicia sativa ssp segetalis</i>	Common vetch	Plants	Flowering Plants
<i>Viola odorata</i>	Sweet violet	Plants	Flowering Plants
<i>Viola riviniana</i>	Common dog violet	Plants	Flowering Plants

Table 4b – Grasses Sedges Rushes

Scientific name	Common name	Group	Group Details
<i>Agrostis stolonifera</i>	Creeping bent	Plants	Grass/Sedge/Rush
<i>Alopecurus geniculatus</i>	Marsh foxtail	Plants	Grass/Sedge/Rush
<i>Alopecurus pratensis</i>	Meadow foxtail	Plants	Grass/Sedge/Rush
<i>Anisantha sterilis</i>	Barren brome	Plants	Grass/Sedge/Rush
<i>Arrhenatherum elatius</i>	False oat grass	Plants	Grass/Sedge/Rush
<i>Carex hirta</i>	Hairy sedge	Plants	Grass/Sedge/Rush
<i>Carex nigra</i>	Common sedge	Plants	Grass/Sedge/Rush
<i>Carex pendula</i>	Pendulous sedge	Plants	Grass/Sedge/Rush
<i>Carex riparia</i>	Greater pond sedge	Plants	Grass/Sedge/Rush
<i>Cirsium palustre</i>	Marsh sedge	Plants	Grass/Sedge/Rush
<i>Dactylis glomerata</i>	Cock's foot	Plants	Grass/Sedge/Rush
<i>Eleocharis uniglumis</i>	Slender spiked rush	Plants	Grass/Sedge/Rush
<i>Equisetum arvense</i>	Field horsetail	Plants	Grass/Sedge/Rush
<i>Glyceria maxima</i>	Reed canary-grass	Plants	Grass/Sedge/Rush
<i>Juncus articulatus</i>	Jointed rush	Plants	Grass/Sedge/Rush
<i>Juncus effusus</i>	Soft rush	Plants	Grass/Sedge/Rush
<i>Lolium perenne</i>	Perennial ryegrass	Plants	Grass/Sedge/Rush
<i>Luzula campestris</i>	Field wood-rush	Plants	Grass/Sedge/Rush
<i>Phalaris arundinacea</i>	Reed canary-grass	Plants	Grass/Sedge/Rush
<i>Poa annua</i>	Annual meadow grass	Plants	Grass/Sedge/Rush
<i>Poa nemoralis</i>	Wood blue grass	Plants	Grass/Sedge/Rush
<i>Poa trivialis</i>	Rough meadow grass	Plants	Grass/Sedge/Rush
<i>Polygonum aviculare</i>	Knotgrass	Plants	Grass/Sedge/Rush

Table 4c – Trees and Shrubs

Scientific name	Common name	Group	Group Details
<i>Acer campestre</i>	Field maple	Plants	Tree/Shrub
<i>Acer pseudoplatanus</i>	Sycamore	Plants	Tree/Shrub
<i>Aesculus hippocastanum</i>	Horse chestnut	Plants	Tree/Shrub
<i>Alnus glutinosa</i>	Alder	Plants	Tree/Shrub
<i>Betula pendula</i>	Silver birch	Plants	Tree/Shrub
<i>Buddleja davidii</i>	Butterfly bush	Plants	Tree/Shrub
<i>Carpinus betulus</i>	Hornbeam	Plants	Tree/Shrub
<i>Cornus sanguinea</i>	Dogwood	Plants	Tree/Shrub
<i>Corylus avellana</i>	Hazel	Plants	Tree/Shrub
<i>Crataegus monogyna</i>	Hawthorn	Plants	Tree/Shrub
<i>Euonymus europaeus</i>	Spindle	Plants	Tree/Shrub
<i>Fraxinus excelsior</i>	Ash	Plants	Tree/Shrub
<i>Ilex aquifolium</i>	Holly	Plants	Tree/Shrub
<i>Ligustrum ovalifolium</i>	Oval-leafed privet	Plants	Tree/Shrub
<i>Ligustrum vulgare</i>	Wild privet	Plants	Tree/Shrub
<i>Malus domestica</i>	Apple	Plants	Tree/Shrub
<i>Malus sylvestris</i>	Crab apple	Plants	Tree/Shrub
<i>Pinus nigra</i>	Pine	Plants	Tree/Shrub
<i>Pinus sylvestris</i>	Scot's pine	Plants	Tree/Shrub
<i>Populus alba</i>	White poplar	Plants	Tree/Shrub
<i>Populus nigra</i> '	Black poplar	Plants	Tree/Shrub
<i>Populus nigra betuliaefolia</i>	Native black poplar	Plants	Tree/Shrub

Scientific name	Common name	Group	Group Details
<i>Populus tremula</i>	Aspen	Plants	Tree/Shrub
<i>Prunus avium</i>	Wild cherry	Plants	Tree/Shrub
<i>Prunus avium "Plena Flora"</i>	Double flowering wild cherry	Plants	Tree/Shrub
<i>Prunus laurocerasus</i>	Cherry laurel	Plants	Tree/Shrub
<i>Prunus padus</i>	Bird cherry	Plants	Tree/Shrub
<i>Prunus spinosa</i>	Blackthorn	Plants	Tree/Shrub
<i>Quercus robur</i>	Pedunculate oak	Plants	Tree/Shrub
<i>Ribes rubrum</i>	Red currant	Plants	Tree/Shrub
<i>Salix alba</i>	White willow	Plants	Tree/Shrub
<i>Salix caprea</i>	Goat willow	Plants	Tree/Shrub
<i>Salix cinerea</i>	Grey willow/sallow	Plants	Tree/Shrub
<i>Salix fragilis</i>	Crack willow	Plants	Tree/Shrub
<i>Salix sepulcralis</i>	Weeping willow	Plants	Tree/Shrub
<i>Salix triandra</i>	Almond willow	Plants	Tree/Shrub
<i>Salix viminalis</i>	Common osier	Plants	Tree/Shrub
<i>Sambucus nigra</i>	Elder	Plants	Tree/Shrub
<i>Sorbus aucuparia</i>	Rowan	Plants	Tree/Shrub
<i>Tilia x europaea</i>	Lime	Plants	Tree/Shrub
<i>Viburnum lantanoides</i>	Hobble bush	Plants	Tree/Shrub

Table 5 – Vertebrates

Scientific Name	Common Name	Group	Group Detail
<i>Bufo bufo</i>	Common toad	Vertebrates	Amphibian
<i>Lissotriton vulgaris</i>	Smooth newt	Vertebrates	Amphibian
<i>Rana temporaria</i>	Common frog	Vertebrates	Amphibian
<i>Esox lucius</i>	Pike	Vertebrates	Fish
<i>Gasterosteus aculeatus</i>	Stickleback	Vertebrates	Fish
<i>Phoxinus phoxinus</i>	Common minnow	Vertebrates	Fish
<i>Apodemus sylvaticus</i>	Wood Mouse	Vertebrates	Mammal
<i>Lutra lutra</i>	Otter	Vertebrates	Mammal
<i>Meles meles</i>	Badger	Vertebrates	Mammal
<i>Muntiacus reevesi</i>	Muntjac deer	Vertebrates	Mammal
<i>Oryctolagus cuniculus</i>	Rabbit	Vertebrates	Mammal
<i>Pipistrellus pipistrellus</i>	Common pipistrelle	Vertebrates	Mammal
<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle	Vertebrates	Mammal
<i>Rattus norvegicus</i>	Rat	Vertebrates	Mammal
<i>Sciurus carolinensis</i>	Grey Squirrel	Vertebrates	Mammal
<i>Talpa europaea</i>	Mole	Vertebrates	Mammal
<i>Vulpes vulpes</i>	Fox	Vertebrates	Mammal