

Assessment of Wildlife Status 2009 The Commons Local Nature Reserve

Produced By

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1 Summary

It should be noted that, although the primary function of this report is to establish the local and regional wildlife status of The Commons Local Nature Reserve, its secondary function is to emphasise its place and importance within the surrounding Countryside.

The evidence collected on the movement of farmland birds, bats and harvest mice all confirm the need for wildlife corridors (e.g. hedgerows, rides, field margins and water courses) linking the reserve with buffer zones located in the surrounding area and beyond.

In addition this report helps us to learn more about the value of continued recording and highlights any gaps in the recorded data enabling additional surveys to correct these omissions.

The report also allows us to defend the reserve against any direct or indirect threat to its future.

A Living Landscape – Sir David Attenborough

“We must now work on a landscape scale if we are to give wildlife a chance and allow future generations to enjoy nature as we have.”

The Living Landscape Campaign.

“A continuous network of urban and rural wildlife habitats is being seen as the natural life support system upon which all will depend”

Chris Baines. (Vice president of The Wildlife Trusts)
In Natural World – Winter 2008

1 Introduction

- The Commons Local Nature Reserve is owned by Welwyn Hatfield Council and is managed within the bounds of the Council's Nature Conservation Strategy and current management plan.
- A **Local Nature Reserve** or **LNR** is a statutory designation made under Section 21 of the National Parks and Access to the Countryside Act 1949. To establish an LNR the declaring local authority must first have a legal interest in the land concerned.
- An LNR may be given protection against damaging operations. It also has certain protection against development on and around it. This protection is usually given via the Local Plan, (produced by the planning authority), and often supplemented by local by-laws. However there is no national legal protection specifically for LNRs.
- The management plan was produced by Welwyn Hatfield Council in consultation with Commonswood Nature Watch and DEFRA.
- The overall objective of the plan is the wildlife enhancement of specific areas and the conservation of the species found within them.
- The Commons LNR entered into the DEFRA Entry Level Stewardship 1st October 2004 and all areas are managed within the bounds of this agreement.
- Blackfan Fen. To halt advancing scrub and prevent further development of secondary woodland and subsequent management of the fen habitat.
- Howlands Meadow. To remove encroaching scrub and expand the area of unimproved grassland. Removal of high forest, mainly ash and replace with coppice woodland with standards.
- Peter's Meadow. Grassland created from a civil engineering project.
adjacent to Hatfield Hyde Brook and Howlands Meadow.
Manage the area in conjunction with Howlands Meadow with particular attention to the habitat directly adjacent to the water

course.

- Windmill Hill. To manage approximately 50% of the area as a spring sown arable crop with particular attention to producing winter stubble and standing crop. Also to encourage the colonization of arable weeds.
- The remaining areas of grassland to be managed for small mammals and invertebrates.
- The Commons LNR is an urban fringe nature reserve with a diverse range of habitats that makes up approximately 15 hectares on the south-eastern edge of Welwyn Garden City. Grid Ref TL258108
- Since the official opening in 1998, the management of the reserve has been carried out monthly by volunteer work parties organised by the reserve voluntary warden and the Commonswood Nature Watch Committee
- Contractors are used as required for specific tasks.
- Recording of flora and fauna has been carried out since 1995 when Trevor James working for the Hertfordshire Biological Records Centre at that time carried out a survey of the site for Welwyn Hatfield Council.

At that time there was a possibility of the land being acquired as a Nature Reserve. The land was not tenanted and had been neglected for many years, by its then owner, The Commission for New Towns.

- The initial survey and subsequent report that was produced in January 1996 highlighted the diversity of its flora and fauna, with some county rare habitat and plant species being noted at the time. Recording and monitoring of species has continued from that date.

Thames Water

- The area of land, which lies central in the reserve, was owned by Thames Water until the autumn of 2008 when it was transferred to Welwyn Hatfield Borough Council for one pound. Prior to this it had been managed with their permission by Commonswood Nature Watch since 1995.
- The area has been ecologically monitored since 1995.
- An area of approximately 0.8 hectares lies between Windmill Hill

and Howlands Meadow and formed a vital land bridge linking the two areas before 2008. Access through the area was granted to Welwyn Hatfield Council under license from Thames Water, but was not a permanent public right of way.

- There is an access track leading to the Commons to the pumping station for maintenance vehicles only, it has no official public access granted. The pumping station was decommissioned in 1996 after the sewer was upgraded.
- The roof space of the building has a Pipistrelle 45 bat roost that has been monitored since 1992 (see appendices, Status of Species of Principle Importance)
- From January 1st 2009 the land will be included as part of The Commons Local Nature Reserve and in all references will be included in Howlands Meadow.

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3 A Brief Description of The habitats of The Commons and their management

3.1 Blackfan Fen

- An area of 5.5 hectares comprising mainly of scrub, a narrow band of secondary woodland, which forms the eastern boundary, and two separate areas (North & South) of calcareous fen.
- It was apparent from the initial surveys carried out in this area that the immediate management would be to halt the advancing scrub and prevent further drying out and ultimately the loss of the fen habitat that is of county importance.
- The two areas are separated at present by a broad band of scrub. One of the objectives of the management plan is to eventually link the two areas. This objective may change as surveys have revealed only isolated wetland pockets of fen plant species. The remaining area of scrub is growing on a ridge of clay.
- The southern area, almost completely covered by bramble was first cut and cleared in the winter of 1997/98 with scrub on the margins also removed.
- Subsequent management has been by hand clearance and grazing.
- Management in the winter 1999/00 concentrated on the north fen.
- The north fen is the wetter of the two areas and remains wet throughout dry summers;
- This has restricted the ability of advancing scrub to establish itself. Some removal has been carried out since 1998, concentrated mainly at the southern end of this area.
- Subsequent management has been by hand clearance and grazing.
- A concerted effort to open up the margins around the fen was started at this time and will continue as required.
- Coppicing of selected areas within the scrub and secondary woodland has also been carried out. Mature Oaks *Quercus robur*

have been left as standards, smaller specimens of Oak, Hawthorn *Crataegus monogyna*, Ash *Fraxinus excelsior* and Hornbeam *Carpinus betulus* have been cut at a suitable height to form pollards for the future.

- Approximately 300 natural Hazel stools *Corylus avellana* are growing throughout the fen area, with many of considerable age. Additional planting of this species and Blackthorn *Prunus spinosa* will be carried out as the coppicing is finished in each block.
- Although visitors to the site have increased, the paths in this area have stayed in a reasonable condition considering the overall wet conditions. Sections of the main path were in need of attention, three sections of boardwalk and sensitive footpath surfacing was carried out during the summer of 2000.

3.2 Howlands Meadow

- An area of unimproved, species rich, mesotrophic grassland.
- In the survey of 1996 only 0.1 hectare of open grassland remained.
- Removal of encroaching ash scrub dominated the area in 1994 and was the priority. By the winter of 1998/99 this had been completed to the extent that the grassland area is approximately 1 hectare and is now managed by sensitive grazing using a small flock of Hebridean sheep.
- The remaining areas of Ash *Fraxinus excelsior* are being coppiced on a five-year rotation and are producing some good quality materials for hurdle making and other crafts. Woven and dead hedgerows are constructed from surplus material.
- The total number of plant species recorded here during the first surveys was 135, further surveys have brought the total to 169. An important plant for the meadow is Bee Orchid *Ophrys apifera*; research has found that good numbers were seen here forty years ago. As the scrub is removed and coppicing is carried out new suites of this plant are being found.
- The meadow is very important for butterflies; one in particular is the White- Letter Hairstreak *Strymonidia w-album*. It requires Elm species to over-winter; eggs are laid in the leaf axils on its branches at the end of its flight period in July.
- A number of small Elms grow on this area and as Wych Elm *Ulmus glabra*, English Elm *Ulmus procera* and **Cornish Elm *Ulmus stricta***.
- As specimens are found during work on the coppice areas in the winter, they are left until the flight period of the adult butterfly in

mid July and then selective coppicing is carried out to promote re-growth, which extends the life of the tree.

- Although the area is called Howlands Meadow approximately 40% of it is high forest, mainly, Ash *Fraxinus excelsior* Oak *Quercus robur* and Crack Willow *Salix fragilis*.
- The management will be to maintain the wooded aspect of the area with an overall plan to create coppice with standards.
- To open up areas adjacent to the foot-paths to allow light in. This will allow a more diverse woodland flora to develop on the margins and provide a more suitable habitat for butterflies.
- This area is also very important for birds. The scrubby edges that form an ecotone linking the meadow to the woodland comprise mainly of Blackthorn *Prunus spinosa*, Hawthorn *Crataegus monogyna* Dog Rose *Rosa canina* and Bramble *Rubus fruticosus* agg. It provides excellent habitat for nesting birds. The management will be to maintain this scrub and not let it develop into high forest.

3.3 Peter's Meadow

This area of meadow was created during the civil engineering works carried out by Thames Water in 2003 to replace the old sewer system that ran from the Beehive Pumping Station to Panshanger. Two hundred ash trees were felled along the proposed line of the sewer before the work started on the reserve. These trees were part of secondary woodland from the adjacent area of Commonswood. The removal and subsequent creation of grassland has contributed greatly to the conservation of Water Voles found within the reserve area.

Following the completion of the work the area, 1.1 hectares was sown with a mix of grass seed, some of which was harvested from Howlands Meadow. Several willows were pollarded along the line of the brook and have now been in management for 6 years.

The area has now been restored to how it was 40 years ago before the woodland started to take over. Grazing was the preferred option of management for the meadow but following several incidents of fence cutting by dog walkers, hay is cut from the area in August. Flora surveys carried out post engineering works have indicated that species lost through dense woodland cover have regenerated from natural seed within the soil. The 140 species recorded in August 2009 compares to the list for Howlands Meadow which stands at 156.

3.4 Hatfield Hyde Brook

- During dry conditions this is mainly shallow and slow flowing water course as it passes through the reserve.
- It is spring fed; its source is from the Woodhall area of Welwyn Garden City and is culverted from there until it emerges at the Howlands entrance of the reserve. Water temperatures taken during cold periods show an average of 42 OF
- Road drainage has been directed into the brook as the southern edge of Welwyn Garden City has expanded from the early 1950s. High levels of rainfall can cause the flow to change dramatically and levels may rise by up to 1.1 metres. This action causes deep cutting and scouring of the bed and banks, which are steep sided and with very little emergent vegetation.
- Pollution of the brook was a frequent and major problem throughout the 1960s and 70s; however this has been reduced to a minimum by the vigilance of Commonswood Nature Watch, local residents and site warden and support of the Environment Agency since the site became a Nature Reserve. The pollutants from road drainage will be an ongoing problem but incidents of sewage and industrial waste finding their way into the brook have largely been curtailed.
- Incidents have reduced since the replacement of the main sewer feeding the pumping station in 2003.
- Some management of the brook margins and adjoining bank-side vegetation has been carried out enabling more light to reach the brook. In areas where this management has been carried out there has been a noticeable increase in the vascular flora, which will benefit the decreasing small population of Water Voles *Arvicola terrestris*.
- Water Shrew *Neomys fodiens* is also recorded along the brook and any management work carried out will benefit this species also as they share similar habitat requirements to that of the Water Vole.
- The woodland adjacent to the reserve, which forms the opposite bank of the brook, is Commons Wood. It is owned by the Hatfield Park Estate and is managed by them as commercial woodland.
- Hatfield Estate is proposing substantial permissive access improvements in 2010 that will run alongside the sylvicultural management. They have indicated a willingness to work with the reserve and through discussion have agreed to manage several areas along the water course that will benefit species such as Water Vole, Water Shrew and the seven bat species recorded on the reserve.

3.3 Fen Brook

- Smaller in capacity than Hatfield Hyde Brook, it emerges at the northern end of Black Fan Fen and is spring fed.
- An old ditch system can still be seen through the Caponfield open space and links to the fen via a small section of culvert.
- From the point of emergence to just upstream of the Baptist Church there is very little water; this has enabled leaf litter and silt to build up, probably over hundreds of years and has formed a valuable ecosystem for invertebrates.
- Water flowing out of the North Fen finds its way into the brook 30 metres upstream of the church, water only flows out of the fen during periods of rain. It stops when the rain ends and the fen is saturated.
- A culvert enters the brook from the west, next to the church. Its flow is continuous throughout the year. It is similar to the culvert of Hatfield Hyde Brook as it also picks up road drainage from the Hall Grove area. In wet weather flow changes are very dramatic and from this point the brook's character, i.e. shape, depth of banks and its flow are similar to that of Hatfield Hyde Brook.
- Fen Brook flows into Hatfield Hyde Brook at the north-eastern corner of Commonswood and joins the River Lea approximately 1 kilometre to the south.
- Fen Brook has a more diverse flora with some emergent vegetation in places.
- Coppicing along the margins and around the silted up pool areas was started in the winter 2000/01.
- It is clear from the descriptions of 3.3 and 3.4 that the hydrology of the site is dependent on the land surrounding the reserve and is of paramount importance in the maintenance of the aquatic habitats

3.5 Windmill Hill

- Situated on the eastern side of the reserve, some 5 hectares of permanent grassland and arable, with 80% of its boundary linking to adjacent farmland.
- Management of this area has concentrated mainly on the arable field. The annual programme of arable management on 2

hectares started in 1998.

- Since entering the Countryside Stewardship agreement features such as beetle banks, hedgerows, areas of pollen nectar mix grassland and headlands have been created
- The year begins with ploughing and subsequent sowing of a spring crop of mixed cereals, wheat, barley and oats, in March. Of the resultant crop up to 50% has been cut and left as stubble, while the rest of the crop left to stand through the winter.
- Problems have occurred in the past with wet spring weather making it difficult to access the arable field across the permanent grassland. This problem has been resolved by creating tracks from compacted aggregate for machinery to access the area from the entrance next to the church onto the level area midway up between the arable and grassland area of Windmill Hill.
- Although there has not been any decision to manage the area organically, this has largely been achieved. Fertilizers have not been used since the farmer, the previous land user, sowed his last crop in 1995.
- Some nitrogen deficiency is apparent within the crop on occasions, so a decision to sow an under crop of white and red clover *Trifolium pratense / repens* to fix nitrogen is taken when appropriate.
- Because of the need for specialist equipment a contractor carries out the ploughing and subsequent sowing operation in mid to late March. The management has proved very successful for farmland birds with good numbers recorded.
(See bird report)

Arable weeds project on Windmill Hill

- The management of arable weeds is very important for the site; this provides natural food to complement the crop grown as a food source for birds during the winter months. One of the plants recorded in 1998, Corn Spurrey *Spergula arvensis* has now colonized the majority of the crop area. It is now recorded as (local) in Hertfordshire. It was not found in the initial survey of the area, but has spread throughout the crop from a natural seed bank during the early years of management.
- The temptation of wholesale introductions of arable weeds has been avoided to see if any uncommon species would be found as management progressed, to date only the Corn Spurrey has been recorded.
- More common species have been added to the original list.

Corn Cockle *Agrostemma githago*

- This species was recorded on the reserve in the survey of 1995 by Trevor James and was most likely a garden escape.
- It was decided that a small-scale introduction of this plant within the arable area would be feasible. The intention would be to produce enough seed to eventually make the plant self-sustaining. Approximately 100 seeds of native provenance were sown in the spring of 1998 and then planted within a designated area. Seed was harvested in the autumn. A similar programme was carried out in 1999 complimenting the production of seed; 300 grams of seed were included in the seed hopper with the cereals and sown in late March 2000. It was successful in the early years with successive germination taking place.
- However, very few plants have been recorded since 1995.

Corn Flower. *Centaurea calcitrapa*

- A very small amount of Hertfordshire seed was sown in a trial area with the crop of 2000. A test sowing was carried out to check the seeds viability as it was collected and stored in 1998.
- A similar programme of seed management to that of the Corn Cockle has been used. The arable conditions that are created within the annual management programme suit this species.
- Because of its status in Hertfordshire Corn Flower has its own action plan within the Biodiversity Action Plan for Hertfordshire (Ref Herts and Middlesex Wildlife Trust.)
- A target for the Commons LNR was to produce enough seed to make the Corn Flower self-sustaining by 2005. This has been achieved but the spread of the seed has been slow with only two small areas obvious.

3.6 Headland

- This is a very important habitat for wildlife; the headland forms a permanent wildlife corridor around the boundary of the arable area and is approximately 4 metres wide.
- In the early years management of the headland was important to maintain its diversity and to stop the grasses becoming dominant, 50% was tyne ripped up annually in early winter. Small groups of native trees and shrubs have been planted on the boundary but the general openness of the area has been maintained.
- Since entering Countryside Stewardship a mixed hedgerow of

native species has been planted around the perimeter of Windmill Hill

- One hectare of Pollen Nectar mix grassland now forms the headland and is managed by grazing.
- A beetle bank links this area to the arable sacrificial winter cereal area.
- An additional beetle bank was created in April 2009
- Selective control of Ragwort *Senecio jacobaea* has been carried out due to the proximity of the adjacent farmland.

3.7 Permanent Grassland

- The lower aspect of Windmill Hill is managed as permanent grassland. In the first years of management the grassland was quite rank with a high density of Ragwort *Senecio jacobaea*. It had very little wild flower interest but was very important for small mammals, butterflies and other invertebrates.
- The succession from grassland to scrub was in the early stages when the reserve was first acquired; management of the area was to stop further advances.
- A small flock of Hebridean sheep is now being used to graze inside permanently fenced areas. Stocking densities have been established and with sensitive management it is hoped to increase the diversity of plants and butterflies found within the grassland.
- Management of Ragwort was carried out manually before the introduction of the Hebridean sheep. They browse the young shoots and within the grazed areas it has been eradicated almost completely. Plants are left on surrounding areas but kept under control for species such as The Cinnabar moth *Tyria jacobaeae*

3.8 Countryside Stewardship

- The reserve had been established for five years when in 1993 the opportunity arose to apply for the Entry Level Countryside Stewardship Scheme offered by DEFRA.
- The Reserve's management plan for hedgerows, grasslands and fen was very similar to the conditions and management prescriptions of the Entry Level scheme. It offered an opportunity to enhance the management and receive an annual payment.
- Targets were set for the 10 year plan that included;
- Management of 3 kilometres of hedgerows by the laying and planting.

New hedgerows were created in the division of grazing areas on Windmill Hill but the majority of the work was restoring boundaries from 1840 and earlier.

- Creation of 60 new pollarded trees from existing saplings and the management of existing mature pollards, some around 300 years old.
- Creation of new ponds and scrapes within the fen area.
- Installation of grazing structures such as; boundary stock fencing and field gates and drinking troughs.
- Annual grazing plans.
- Creation of beetle banks, pollen nectar grass headlands and annual sacrificial crop management of the arable area of Windmill Hill.

4 Species: Recording and Evaluation

4.1 Methodology

- Standard methods for collecting data are essential if changes in wildlife status are to be monitored as management work is carried out over a period of time.
- The methods used in this report are;

Bird Ringing.

- Bird ringing within the site has been on an ad-hoc basis although the number of ringing sessions in each year is very similar. No set methodology has been carried out and therefore the data collected can only be used as an indication of the bird species present.

Observation.

- Bird recording through observations has enabled a species list to be compiled.
- Number counts of winter farmland birds have given an indication as to the success of the arable management.
- Data for the plant species list was also gathered in this way.
- Common Bird Census. (CBC) Although the data is limited it has enabled a comparison to be made with data collected in the area from a survey in 1981 under the same scheme.

Transect.

- This method has been applied to both Butterflies and Small Mammals, the latter of the two being linked to mark and recapture surveys.
- Butterflies have been recorded by this method since 1997 and reference to this is made in the butterfly report.

Mark and Re-capture.

- This method has been applied to the small mammal studies on the reserve and has enabled population numbers to be

established. This has been particularly valuable for the studies on Harvest Mice and their colonization of the arable area of Windmill Hill.

Plant Status

- Where possible the status of a particular species is given using the DAFOR Scale. This is a standard methodology for estimating species frequency. Where used it refers only to the species status within the reserve.
- D. Dominant. A. Abundant. F. Frequent. O. Occasional. R. Rare

4.2

UK Priority Species and Habitats Recorded on or Close to The Commons Local Nature Reserve

Flora

Cornflower	<i>Centaurea cyanus</i>	SAP
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Amphibians

Great-crested Newt	<i>Triturus cristatus</i>	SAP
Toad	<i>Bufo bufo</i>	

Reptiles

Slow Worm	<i>Anguis fragilis</i>	
Grass Snake	<i>Natrix natrix</i>	

Mammals

Water Vole	<i>Arvicola terrestris</i>	SAP
West European Hedgehog	<i>Erinaceus europaeus</i>	
Brown Hare	<i>Lepus europaeus</i>	
Harvest Mouse	<i>Micromys minutus</i>	
Polecat	<i>Mustela putorius</i>	
Noctule Bat	<i>Nyctalus noctula</i>	
Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>	SAP
Natterer's Bat	<i>Myotis nattereri</i>	SAP

Birds

Skylark	<i>Alauda arvensis</i>	SAP
Linnet	<i>Carduelis cannabina</i>	SAP
Common Cuckoo	<i>Cuculus canorus</i>	
Lesser Spotted Woodpecker	<i>Dendrocopos minor</i>	
Corn Bunting	<i>Emberiza calandra</i>	SAP
Yellow Hammer	<i>Emberiza citrinella</i>	
Reed Bunting	<i>Emberiza schoeniclus</i>	SAP
Spotted Flycatcher	<i>Muscicapa striata</i>	SAP

House Sparrow	<i>Passer domesticus</i>	
Tree Sparrow	<i>Passer montanus</i>	SAP
Grey Partridge	<i>Perdix perdix</i>	SAP
Willow Tit	<i>Poecile montanus</i>	
Marsh Tit	<i>Poecile palustris</i>	
Bullfinch	<i>Pyrrhula pyrrhula</i>	SAP
Turtle Dove	<i>Streptopelia turtur</i>	SAP
Starling	<i>Sturnus vulgaris</i>	
Song Thrush	<i>Turdus philomelos</i>	SAP
Northern Lapwing	<i>Vanellus vanellus</i>	

Butterfly

Grizzled Skipper *Pyrgus malvae*

Priority Habitats

Ancient Spp Rich Hedgerows

Cereal Field Margins

Fens

Status of Species of Principle Importance

Cornflower *Centaurea cyanus*

Two small areas are established within the crop area following the sowing of a small amount of seed in 1998 collected from London Colney by The Herts & Middlesex Wildlife Trust as part of the project for The Millennium Seed Bank at Kew Gardens.

Great-crested Newt *Triturus cristatus*

There is one record of this species from 1995 in one of the two ponds created within the school grounds. It probably came from a pond within a garden pond adjacent to Howlands Meadow.

Historically Great Crested Newt has been recorded in ponds near to the reserve but recent surveys have proved negative. An old farm pond in Bennets Close, 300metres west of the reserve has a good sized breeding population. They are also recorded 400 metres due east of the reserve on the area adjacent to the Eco Aggregates site on Birchall Lane.

Toad *Bufo bufo*

This species is recorded within all areas of the reserve. However, no signs of breeding have been recorded

Slow Worm *Anguis fragilis*

Two translocations of this species from local development sites have increased the small reserve population. The first records in 1996 were from the nature area of the school and the grassland of Howlands Meadow around the Thames Water pumping station. Also found in low numbers on the lower path of Windmill Hill.

Grass Snake *Natrix natrix*

Good numbers are to be found in all areas of the reserve. The wet grassland and fen particularly suit this species of reptile. The fen has particularly high numbers; surveys have revealed a good range of age from 300mm to 1200mm. known to breed in the gardens adjacent to the fen.

Ten individuals were identified during a survey of Howlands Meadow between March and June 2009.

Water Vole *Arvicola terrestris*

This mammal has been present on Hatfield Hyde Brook for many years and has suffered a similar decline shown by national records. It was recorded breeding by the outfall near the hospital in 1996 and prompted habitat enhancement which continues to date. The total length of Hatfield Hyde Brook as it passes through the reserve is approximately 400 metres. The section beyond the reserve passes through woodland and arable fields and is another 0.5 kilometre until it reaches its confluence with The River Lea. In 1996 both banks through the reserve were enclosed by woodland, apart from short intermittent sections of meadow. By the end of management work in the winter of 2005/6 200 metres of the reserves bank had been restored to grassland.

Water Voles have also been recorded along fen brook; this forms the western boundary of Blackfan Fen and links into the main brook. Wetland enhancement work in the fen in 2001 created suitable habitat for Water Voles, they were recorded for the first time in that area of the reserve in 2005. The last recorded sighting on the reserve was in 2007.

Regular surveys have been carried out since 1995 for field signs of this species and other wetland mammals. Water Shrews have been recorded and in 2007 there was one record of Mink. Water vole is recorded on The River Lea.

West European Hedgehog *Erinaceus europaeus*

This species has been recorded in Howlands Meadow and Windmill Hill. There have been live sightings but more common are the remains of animals taken by badger that are eaten in a particular way.

Brown Hare *Lepus europaeus*

Recorded on Windmill Hill by its field signs in 1998. It is found on the Hatfield Park Estate in good numbers and any records to the north of the A414 would be of animals that have come from there. There have been a few sightings on the restored grassland of the landfill site during the early 1990s of animals that would also be from the Estate. Over grazing by gypsy ponies on most of the landfill grassland will ensure that this species cannot establish a sustainable population due to lack of habitat. Another factor is that the landmass of the old landfill site is encompassed by major roads and increases in the traffic using these roads restrict the ability of animals to pass across them.

Polecat *Mustela putorius*

Any records of this species are from controlled releases at several sites in east Hertfordshire in the early 1990s. The nearest location to the Commons LNR was Essendon, 2.5 km southeast of the reserve.

The two records for the reserve are from 2001 and 2002. The first was a sighting of a live animal and the second a footprint on Howlands Meadow. Albeit the records come from a re-introduced population it is clear that polecat has naturalised in this area and is breeding. Records are held at The Hertfordshire Biological Centre and consists mainly of road casualties which helps track the colonisation throughout the county.

Bats

Serotine *Epstesicus serotinus*

Daubenton's *Myotis daubentonii*

Natterer's *Myotis nattereri*

Noctule *Nyctalus noctula*

Common Pipistrelle *Pipistrellus pipistrellus*

Soprano Pipistrelle *Pipistrellus pygmaeus*

Brown Long Eared *Plecotus auritus*

Records of bats are recorded occasionally or by specialists from the Herts and Middlesex Bat Group

Skylark *Alauda arvensis*

This species is linked mainly to the reserve through our provision of winter feeding habitat on Windmill Hill. Most records come from birds feeding within or over the crop. Bird ringing has been the main source of data. Captures during the winter of 1997 in the arable area accounted for 2% of the national total for this species caught and ringed in Great Britain that year.

Skylark has been recorded breeding in the grassland of Windmill Hill on two occasions, 1996, and 2000. Habitat requirements for this species to breed within the arable and grass areas are good but pressure from people and dog walking is less than favourable for ground nesting birds.

Skylark numbers within the area of the Commons are high and good numbers breed on the restored land of the landfill site during the summer months. They feed in flocks within the arable landscape during the winter. Although numbers have dropped in recent years the largest flock recorded was in the winter of 1997/8 when approximately 100 were recorded on the reserve and adjacent field stubbles throughout the whole of the winter period. This coincided with stubble left to over winter in the adjacent arable field.

Linnet *Carduelis cannabina*

This species of farmland bird is suffering serious decline. It is recorded on the reserve mainly during the winter months when small flocks gradually build up and

feed within the sacrificial crop area. In the early years of management the flocks would begin to build in late winter and peak during the first few weeks after the spring cereals were sown in mid to late March. However; in recent years since the establishment of the arable regime of the Countryside Stewardship birds appear in late autumn and remain throughout the winter with flocks combining to peak at around 95.

In recent years a BTO study linked this species with Charlock, a common arable weed. This plant is found in high density within the arable field and can be seen as a complete carpet of flower in late May and June. Seed produced by the plant is of significant quantity and is probably the reason that during ploughing linnet numbers starts to build and increase over the following weeks.

Bird ringing has played an important part in our understanding of this species in the reserve and local area. Records have linked birds caught on the reserve to Cromer Hyde Farm, also in stewardship 5 km northwest of the Commons. Any bird ringing with an arable field requires skilful positioning of nets and although ringing records have been constant over the year's high numbers have not been caught. However, in the winter of 1995/6 112 were caught and ringed using standard mist nets and a ground whoosh net (see Bird Ringing).

There are no breeding records for this species but birds have been recorded during the summer months

Common Cuckoo *Cuculus canorus*

This species has been a regular summer visitor to the Commons for many years. Since 1994 it has been recorded within the areas of Windmill Hill and Blackfan Fen. Its arrival dates have been constant throughout the period and is between 13th & 24th of April. Arrival date 2009, 10th April

Lesser Spotted Woodpecker *Dendrocopos minor*

This species of woodpecker is one of three that breed within the area of Commonswood. It is an area of managed woodland and is adjacent to Howlands Meadow. Although Greater Spotted and Green Woodpecker have bred on the reserve to date there is no breeding record for Lesser Spotted.

This species has been recorded in Commonswood since 1980 as part of a long term study of woodpeckers locally. Records for the reserve are generally from sightings but in 1995 an adult female was caught during a ringing session at a feeding station in one of the coppice areas on Howlands Meadow. This is significant, as only 28 are caught and ringed annually throughout the United Kingdom.

Corn Bunting *Emberiza calandra*

Serious declines of this species have seen records drop dramatically in recent years. In the early 1980s reasonable numbers were recorded particularly in the area of arable between the reserve and landfill site. On one occasion in June 1981, nine were recorded on the wire over the filter beds. Reserve records are from birds recorded within flocks of buntings over the arable area of Windmill Hill but these are very infrequent.

Yellow Hammer *Emberiza citronella*

This species is very common within the sacrificial food crop on the arable area during the winter months. In some years particularly the winter of 1996/7 the flock reached 80 to 100 individuals but 40 plus is more common in recent years.

The ringing data has revealed that significant numbers of the birds are local and will be breeding within the farmland nearby. Records have also linked birds caught within the arable to a known yellowhammer roost site at Tewinbury Nature Reserve, 3.5 km north of The Commons. A colour ringing study from 2003 to 2006, which enables individual birds to be identified without re-capturing them also, placed 2 birds within the farmland near Hillend Farm, 2.2 km south of the reserve.

There are 2 records of this species breeding on the southern boundary of Windmill Hill, one in 1997 and the other in 2009. Breeding was expected at some point following the habitat creation through the Countryside Stewardship Scheme as the young hedgerows and grassy bases develop.

Reed Bunting *Emberiza schoeniclus*

This species is a winter visitor to the arable area of Windmill Hill and numbers fluctuate from year to year. The winter 1996/7 saw flock numbers recorded from around 60/80 however, in more recent years numbers have been lower and 30 to 40 is more common.

Ringing data from the Commons has played a very significant role in the conservation of this species locally. Seventeen Reed Buntings ringed at the Commons and six ringed at Stanborough Reedmarsh have been recaptured at both sites proving an important link between winter feeding and roosting habitats. A further two birds have been linked between Tewinbury Reserve and The Commons. One of these during the breeding season in the reedbed of Tewinbury. This data was significant in the re-establishment of reedbed management at Stanborough Marsh. Other individuals have been identified after captures during the winter, within the arable from, Cromer Hyde Farm near Welwyn Garden City, Ryemeads in Hertfordshire, Stokeferry in Norfolk and Icklesham in Sussex .

This species bred in Blackfan Fen in the early 1980's, however, with no habitat management taking place at that time encroachment by scrub made the breeding habitat unsuitable. Management has been taking place since 1997 and breeding was recorded in the summer of 2007 in the north fen area.

Spotted Flycatcher *Muscicapa striata*

This species has been recorded in the area of Howlands Meadow on 2 occasions since 1997. One record in 1998 was a newly fledged family group feeding on one of the Oaks in the meadow. It is most likely that breeding took place in that area but this was not confirmed.

House Sparrow *Passer domesticus*

This species is recorded in reasonable numbers in the housing estate of The Commons. Dense, mature hedgerows for roosting and socialising are an important part of their ecology. Small flocks of up to 20 can be seen during the day and at pre-

gathering roosts in the hedges between Howlands Baptist Church and Commonswood School and the track leading to the pumping station on Howlands Meadow.

They are not usually seen within the habitat of the reserve except during the breeding season when individuals have been caught and ringed in the scrub habitat of Howlands Meadow and Blackfan Fen. It is most likely that the availability of invertebrates within the habitat supports the additional feeding requirements of their young.

Tree Sparrow *Passer montanus*

This species has suffered massive declines over the past 20 years and the Commons has been no exception. There are records of this species within the area of the reserve from the early 1980s. The last record of this species was a male within a flock of house sparrows adjacent to Howlands Meadow in 1995.

A small population was recorded at Hillend Farm, 2.2 km south of the reserve in 1994.

Grey Partridge *Perdix perdix*

Recorded during the winter months on six occasions since 1997 when coveys of up to 20 birds have been seen on the arable area and adjacent farmland around Windmill Hill. They were last recorded in the winter of 2006/7. The winter feeding habitat established through Countryside Stewardship has proved suitable for their specific requirements.

It was assumed that these birds were released by the Hatfield Park Estate gamekeepers but game keepers, however they have confirmed that Grey Partridge have not been reared or released for sport on the estate. Therefore the coveys seen on the reserve must have been wild birds.

The only suitable habitat locally would be the grassland of the restored landfill site east of the reserve. However, this now appears unsuitable for Grey Partridge due to over grazing by ponies. During bird surveys of the landfill site from the public rights of way during the winter of 2008/9 it has been estimated that around 50 ponies are grazing freely over the entire area. This could be a possible reason for no records of Grey Partridge on the arable area and adjacent farmland around Windmill Hill during the winters 2007/8 and 2008/9.

Red Legged partridge have been recorded during the breeding season on two occasions within the crop area but there has been no confirmation of breeding.

Willow Tit *Poecile montanus*

The two records of Willow Tit are from bird ringing in the area of Howlands Meadow in 1994 and 1995. .

Marsh Tit *Poecile palustris*

Records of Marsh Tit are from observation and bird ringing in the scrub habitat of Howlands Meadow and Blackfan Fen. The most recent record is from a garden

feeding station on the edge of Howlands Meadow in February 2009, 2 individuals were seen feeding together over several days.

Bullfinch *Pyrrhula pyrrhula*

This species has been very common on the reserve since records started in 1994. Seen throughout the scrub habitat of Howlands Meadow, Blackfan Fen and adjoining hedgerows. Often recorded in pairs on several occasions during winter 2008/9. Nine were caught in one afternoon during a ringing session in Howland Meadow in the autumn of 1995

Turtle Dove *Streptopelia turtur*

Recorded in the scrub of Blackfan Fen on 3 occasions since 1995. This area is adjacent to farmland and is separated by a mature hedgerow shown on maps in 1840. The latest record is from the summer of 2011, when an injured bird was found and in a garden of a house backing on to the reserve. It was subsequently cared for and released under licence from Natural England.

Starling *Sturnus vulgaris*

This species is recorded in good numbers in the housing estates surrounding the Commons Reserve. Records on the reserve are from observations within the scrub margins adjacent to the housing. However, there is an increase in records during the breeding season from the meadow areas on the lower slope of Windmill Hill when groups of up to 20 have been observed feeding close to the grazing flock of sheep.

Song Thrush *Turdus philomelos*

This species has been recorded in high numbers throughout the reserve since 1994. Latest ringing records confirm this with 7 individuals caught within the two small isolated blocks of scrub extending out from the hedgerow of Windmill Hill arable area that adjoining between 28th December 2008 to 1st March 2009. In a dusk monitoring session in October 2006, seven song thrush were caught and ringed at a roost adjacent to Howlands Meadow.

Northern Lapwing *Vanellus vanellus*

Most of the records of this species are from birds recorded in flight over and near the reserve mainly during the winter months. However, in 2005 and 2007, three birds were seen displaying during the breeding season over the area of the filter beds between the reserve and the landfill site. A flock of sixty plus birds were observed flying over the reserve on February 20th 2008, they were later recorded at dusk that day roosting 40 m east of Windmill Hill on the adjacent farmland.

4.3 Flora

The recording of plants at the Commons started in 1995 as described in

the report introduction.

Since then several surveys have been carried out on a smaller scale. The exception being the one carried out by the Herts and Middlesex wildlife trust as part of their habitat survey of Hertfordshire in 1998.

Plant species recorded were kept as a total list for the reserve. This report has placed all the data together on one list, which can be cross-referenced to each area of the reserve.

The data on the following lists are complete to date. Details given are species, BSBI number and the area it was recorded in.

- Non Flowering Plants (*Cryptogamia*)
- Algae & Fungi (*Thallophyta*)
Fungi 45 species **See Appendix**
Lichens
- Mosses & Liverworts (*Bryophyta*)
Number of Species **See Appendix**
- Horsetails & Ferns (*Pteridophyta*)
Number of Species **See Appendix**
- Conifers (*Gymnospermae*)
Number of Species **See Appendix**
- Flowering Plants (*Angiospermae*)
Number of Species **See Appendix**

4.4 Fauna – Invertebrates

- Dragonflies and Damselflies - Odonata
Dragonflies 9 spp **See Appendix**
Damselflies 5 spp **See Appendix**
- Grasshoppers and Bush Crickets - Orthoptera
9 spp recorded **See Appendix**
- Beetles – Coleoptera
See Appendix
- Butterflies and Moths – Lepidoptera
Butterflies spp 27 **See Appendix**
Moths spp 83 **See Appendix**

4.5 Fauna – Vertebrates

- Fish
- Amphibians
3 spp **See appendix**
- Reptiles
2 spp **See appendix**
- Mammals
24 spp **See appendix**
- Birds
101 spp **See appendix**

5.0 Archaeology

Research into any archaeological interest at The Commons LNR was inevitable and would seem a natural course of action for any group that

manages the land within its boundaries. Several maps of the area, the earliest being 1760 have shown features such as the block of woodland that covered the northern end of Blackfan at that time. Features within the landscape are an important as they give us an indication of recent history and the existence of wood bank's, ditches and old pollarded trees in the fen area from the that are still visible.

However, how the land in the other areas was used is not that obvious and artefacts are our best chance of discovering this.

5.1 Hatfield Hyde Brook.

This is the remnant of a large river system that once flowed through the land of the Commons. The proof of this are the two river terraces that can be seen some twenty metres inside the boundary of Commonswood and the reserve. They were formed by the meltwater at the end of the last Ice Age around ten thousand years ago. The footpath that runs through Peter's Meadow follows the line of the river bed.

The remains of one structure can be seen along the brook, brick foundations of a sluice are situated 50 metres down stream of the kissing gate in Peter's Meadow. Some

5.2 Windmill Hill.

Windmill

It was very common to use land enclosure names that describe certain activities associated with that area of land. Windmill, as part of the name would generally mean that feature existed at some point. There are no obvious features such as foundations remaining and after some research and speaking with experts it would be more likely that it would have been a Post Mill, a wooden movable structure.

One possible area of raised disturbed ground is on the Lafarge farmland 20 metres east of the arable boundary.

The land of Windmill has remained in its original form while most of the adjoining managed farmland was excavated for gravel in the 1960s. The arable management requires annual ploughing and sowing of a spring cereal crop and provides an opportunity for field walking surveys of the soil.

Roman

A mix of small pieces of pot, glass and tile have been found that range from modern back to the Roman period. The earliest date found is a piece of Amphora pot that the county archaeologist placed around AD 65-100, the early years after the Roman invasion. Very little wear on its edges gives an indication of local provenance. The thin scatter of these Roman finds would mean the possibility of a Roman building in the area but not on the Commons.

Neolithic Farmers

Historians believe the route Neolithic Man took into what is now Hertfordshire was from the north and ending up at the Commons along the ridge that runs between the river valleys of the Lea and Mimram. The Commons is at the end of that ridge. It would have been the perfect place for the first farmers to settle, high ground above a river and wetland.

Field walking has given us an insight to this by way of a collection of worked flints that have come from arable area of Windmill Hill. The concentration of finds diminishes as undisturbed land changes to where gravel extraction started

6.0 Acknowledgements

Recording of species on this Nature Reserve is fundamental to the objectives set out within the management plan. We would like to thank everyone who has contributed to the database of records for this reserve.

All future records should be directed to Peter Oakenfull for inclusion on to the database, after which they will be passed on to Welwyn Hatfield Council and The Hertfordshire Biological Records Centre.

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7.0 Appendices

Flowering Plants

BSBI	SPECIES		BF FEN	HM	WH
3	Field Maple	<i>Acer campestre</i>	#	#	#
4	Norway Maple	<i>Acer platanoides</i>	#		
5	Sycamore	<i>Acer pseudoplatanus</i>	#	#	#
7	Yarrow	<i>Achillea millefolim</i>	#	#	#
12	Basil Tyme	<i>Clinopodium vulgar</i>	#	#	#
17	Maidenhair Fern	<i>Adiantum capillus-veneris</i>	#		
19	Moschatel	<i>Adoxa moschatellina</i>	#	#	
20	Ground Elder	<i>Aegopodium podagraria</i>	#	#	
22	Agrimony	<i>Agrimonia eupatoria</i>	#	#	#
25	Perenial Beard-Grass	<i>xAgropogon littoralis</i>	#		
33	Common Couch	<i>Elytrigia repens</i>	#	#	#
34	Corncockle	<i>Agrostemma githago</i>		#	#
36	Black Bent	<i>Agrostis gigantea</i>	#		
37	Water Bent	<i>Polypogon viridis</i>	#		
39	Creeping Bent	<i>Agrostis stolonifera</i>	#	#	#
40	Common Bent	<i>Agrostis capillaris</i>		#	#
46	Bugle	<i>Ajuga reptans</i>	#	#	
59	Lady's Mantle	<i>Alchemilla minima</i>	#	#	
	Ribbon-Leaved Water				
61	Pepper	<i>Polygonum hydropiper</i>	#	#	
64	Garlic Mustard	<i>Alliaria petiolata</i>	#	#	#
65	Wild Leel	<i>Allium ampeloprasum</i>	#	#	
69	Few-Flowered Garlic	<i>Allium paradoxum</i>			#
76	Wild Onion	<i>Allium vineale</i>	#	#	
85	Meadow Foxtail	<i>Alopecurus pratensis</i>		#	
93	Ragweed	<i>Ambrosia artemisiifolia</i>			#
99	Scarlet Pimpernel	<i>Anagallis arvensis</i>	#	#	#
109	Wild Angelica	<i>Angelica sylvestris</i>	#	#	#
113	Baron Brome	<i>Anisantha sterilis</i>			#
118	Stinking Chamomile	<i>Athemis cotula</i>			#
167	Horse Radish	<i>Armoracia rusticana</i>	#		
169	False Oat Grass	<i>Arrhenatherum elatius</i>		#	#
175	Mugwort	<i>Artemisia vulgaris</i>			#
218	Common Orache	<i>Atriplexpatula</i>		#	
220	Wild Oat	<i>Avena fatua</i>			#
231	Daisy	<i>Bellis perennis</i>		#	
239	Silver Birch	<i>Betula pendula</i>	#		
272	Hairy-brome	<i>Bromopsis ramosa</i>	#	#	
276	White Bryony	<i>Bryonia dioica</i>		#	
310	Marsh Marigold	<i>Caltha palustris</i>	#		
311	Hedge Bindweed	<i>Calystegia sepium</i>	#	#	#

328	Wavey Bitter-cress	<i>Cardamine flexuosa</i>	#	#	
331	Cuckooflower	<i>Cardamine pratensis</i>	#	#	#
341	Lesser Pond-sedge	<i>Carex acutiformis</i>	#		
367	Brown Sedge	<i>Carex disticha</i>	#		
381	Hairy Sedge	<i>Carex hirta</i>	#		
393	Common Sedge	<i>Carex nigra</i>	#		
396	False Fox-sedge	<i>Carex otrubae</i>	#		#
401	Greater Tussock-sedge	<i>Carex paniculata</i>		#	
413	Greater Pond-sedge	<i>Carex riparia</i>	#		
421	Wood Sedge	<i>Carex sylvatica</i>	#		
428	Hornbeam	<i>Carpinus betulus</i>	#	#	
446.1	Greater Knapweed	<i>Centaurea scabiosa</i>	#	#	#
446	Black Knapweed	<i>Centaurea nigra</i>		#	
466	Sticky Mouse Ear	<i>Cerastium glomeratum</i>			#
467	Common Mouse Ear	<i>Cerastium fontanum</i>		#	#
477	Rosebay Willowherb	<i>Epilobium angustifolium</i>	#	#	#
482	Fat-hen	<i>Chenopodium album</i>		#	#
496	Red Goosefoot	<i>Chenopodium rubrum</i>		#	
502	Oxeye Daisy	<i>Leucanthemum vulgare</i>		#	
513	Enchanters-nightshade	<i>Circaea lutetiana</i>	#	#	
515	Creeping Thistle	<i>Cirsium arvense</i>	#	#	#
520	Marsh Thistle	<i>Cirsium palustre</i>	#		
522	Spear Thistle	<i>Cirsium vulgare</i>		#	#
544	Field Bindweed	<i>Convolvulus arvensis</i>			#
548	Dogwood	<i>Cornus sanguinea</i>	#	#	
557	Hazel	<i>Corylus avellana</i>	#	#	#
567	Mossy Stonecrop	<i>Crassula tillaea</i>		#	
569	Hawthorn	<i>Crataegus monogyna</i>	#	#	#
570	Midland Hawthorn	<i>Ctataegus laevigata</i>	#	#	
572	Smooth Hawks Beard	<i>Crepis capillaris</i>		#	
579	Crested Dogs Tail	<i>Cynosurus cristatus</i>		#	
607	Cocks Foot	<i>Dactylis glomerata</i>	#	#	#
620	Wild Carrot	<i>Daucus carota</i>		#	#
627	Tufted Hair Grass	<i>Deschampsia cespitosa</i>	#	#	
687	Bluebell	<i>Hyacinthoides non-scripta</i>	#	#	
688	American Willowherb	<i>Epilobium adenocaulon</i>			#
692	Great Willoherb	<i>Epilobium hirsutum</i>	#	#	#
695	Broad-leaved Willowherb	<i>Epilobium montanum</i>		#	#
698	Hoary Willowherb	<i>Epilobium parviflorum</i>	#		
712	Field Horsetail	<i>Equisetum arvense</i>		#	#
733	Blue Fleabane	<i>Erigeron acer</i>			#
735	Canadian Fleabane	<i>Conyza canadensis</i>			#
762	Spindle	<i>Euonymus europaeus</i>	#		
763	Hemp Agrimony	<i>Eupatorium cannabinum</i>	#		
772	Sun Spurge	<i>Euphorbia helioscopia</i>		#	
816	Giant Fescue	<i>Festuca gigantea</i>	#	#	
824	Festuca rubra agg.	<i>Festuca rubra agg</i>		#	
833	Meadowsweet	<i>Filipendula ulmaria</i>	#	#	#
839	Alder Buckthorn	<i>Frangula alnus</i>	#		
841	Ash	<i>Fraxinus excelsior</i>	#	#	#
854	Common Furmitory	<i>Fumaria officinalis</i>		#	#
862	Yellow Archangel	<i>Lamiastrum galeobdolon</i>	#	#	
868	Common Hemp-Nettle	<i>Galeopsis tetrahit agg</i>	#	#	
873	Cleavers	<i>Galium aparine</i>	#	#	

879	Hedge Bedstraw	<i>Galium mollugo</i>		#
882	Common Marsh Bedstraw	<i>Galium palustre</i>	#	#
887	Fen Bedstraw	<i>Galium uliginosum</i>	#	
907	Cut-leaved Cranesbill	<i>Geranium dissectum</i>		#
	Small-flowered Cranesbill	<i>Geranium pusillum</i>		#
918	Herb Robert	<i>Geranium robertianum</i>	#	# #
925	Herb Benett	<i>Geum urbanum</i>	#	#
931	Ground Ivy	<i>Glechoma hederacea</i>	#	#
932	Small Sweet Grass	<i>Glyceria declinata</i>	#	
941	Marsh Cudweed	<i>Gnaphalium uliginosum</i>	#	
952	Ivy	<i>Hedera helix</i>	#	# #
968	Hogweed	<i>Heracleum sphondylium</i>	#	# #
984	Creeping Soft Grass	<i>Holcus mollis</i>		#
983	Yorkshire Fog	<i>Holcus lanatus</i>	#	# #
1014	Perforate St.John's Wort	<i>Hypericum perforatum</i>		#
	Square-stalked St.Johns			
1016	Wort	<i>Hypericum tetrapterum</i>	#	
1023	Holly	<i>Ilex aquifolium</i>	#	#
1038	Yellow Iris	<i>Iris pseudacorus</i>	#	
1054	Jointed Rush	<i>Juncus articulatus</i>	#	
1057	Toad Rush	<i>Juncus bufonius</i>		#
1067	Soft Rush	<i>Juncus effusus</i>	#	#
1070	Hard Rush	<i>Juncus inflexus</i>	#	# #
1076	Blunt-flowered Rush	<i>Juncus subnodulosus</i>	#	
1083	Round-leaved Fluellen	<i>Kickxia spuria</i>	#	
1084	Field Scabious	<i>Knautia arvensis</i>		#
1094	Prickly Lettuce	<i>Lactuca serriola</i>	#	# #
1098	White Dead Nettle	<i>Lamium album</i>	#	# #
1103	Red Dead Nettle	<i>Lamium purpureum</i>	#	#
1104	Nipplewort	<i>Lapsana communis</i>	#	# #
1114	Grass Vetchling	<i>Lathyrus nissolia</i>		#
1116	Meadow Vetchling	<i>Lathyrus pratensis</i>	#	# #
1118	Honeysuckle	<i>Lonicera periclymenum</i>	#	
1183	Rye Grass	<i>Lolium perenne</i>		# #
1191	Birds-foot Trefoil	<i>Lotus corniculatus</i>		#
1194	Greater Birds-foot Trefoil	<i>Lotus uliginosus</i>	#	#
1210	Ragged Robin	<i>Lychnis flos-cuculi</i>	#	#
1222	Creeping Jenny	<i>Lysimachia nummularia</i>	#	
1225	Yellow Loosestriffe	<i>Lysimachia vulgaris</i>	#	
1227	Purple Loosestriffe	<i>Lythrum salicaria</i>	#	
1230	Crab Apple	<i>Malus sylvestris</i>	#	#
1232	Musk Mallow	<i>Malva moschata</i>	#	
1236	Common Mallow	<i>Malva sylvestris</i>		# #
1241	Scentless Mayweed	<i>Matricaria perforata</i>		#
1250	Black Medick	<i>Medicago lupulina</i>		#
1252	Lucerne	<i>Medicago sativa</i>		# #
1258	White Campion	<i>Silene latifolia</i>	#	# #
1259	Red Campion	<i>Silene dioica</i>		# #
1272	Water Mint	<i>Mentha aquatica</i>	#	# #
1273	Corn Mint	<i>Mentha arvensis</i>		#
1290	Annual Mercury	<i>Mercurialis annua</i>		#
1305	Three-nerved Sandwort	<i>Moehringia trinervia</i>	#	#
1317	Field Forget-me-not	<i>Myosotis arvensis</i>		#
1322	Water Forget-me-not	<i>Myosotis scorpioides</i>	#	

1325	Wood Forget-me-not	<i>Myosotis sylvatica</i>	#	#	
		<i>Rorippa nasturtium-</i>			
1348	Water Cress	<i>aquaticum</i>	#		
1361	Red Bartsia	<i>Odontites vernus</i>		#	#
1382	Bee Orchid	<i>Ophrys apifera</i>		#	
1430	Common Poppy	<i>Papava rhoeas</i>		#	#
1461	Smaller cat's-tail	<i>Phleum bertolonii</i>		#	
1463	Timothy Grass	<i>Phleum pratense</i>	#	#	
1471	Bristly Oxtongue	<i>Picris echioides</i>			#
1487	Ribwort Plantain	<i>Plantago lanceolata</i>		#	#
1488	Greater Plantain	<i>Plantago major</i>	#	#	
1495	Annual Meadow Grass	<i>Poa annua</i>		#	
1504	Wood Meadow Grass	<i>Poa nemoralis</i>		#	
1507	Rough Meadow Grass	<i>Poa trivialis</i>	#	#	#
1522	Knot Grass	<i>Polygonum aviculare</i>		#	#
1527	Black Bindweed	<i>Fallopia convolvulus</i>			#
1530	Water Pepper	<i>Persicaria hydropiper</i>	#	#	
1531	Pale Persicaria	<i>Persicaria lapathifolia</i>		#	
1537	Redshank	<i>Persicaria maculosa</i>	#		#
1584	Silverweed	<i>Potentilla anserina</i>	#	#	#
1594	Creeping Cinquefoil	<i>Potentilla reptans</i>	#	#	#
1596	Barren Strawberry	<i>Potentilla sterilis</i>	#		
1605	Cowslip	<i>Primula veris</i>	#	#	
1607	Primrose	<i>Primula vulgaris</i>	#	#	
1610	Selfheal	<i>Prunella vulgaris</i>	#	#	#
1611	Wild Cherry	<i>Prunus avium</i>	#	#	
1617	Blackthorn	<i>Prunus spinosa</i>	#	#	#
1625	Common Fleabane	<i>Pulicaria dysenterica</i>	#		
1640	Pedunculate Oak	<i>Quercus robur</i>	#	#	#
1647	Bulbous Buttercup	<i>Ranunculus bulbosus</i>		#	
1649	Lesser Celandine	<i>Ranunculus ficaria</i>	#	#	
1660	Creeping Buttercup	<i>Ranunculus repens</i>	#	#	
1673	Weld	<i>Reseda luteola</i>		#	
1696	Red Currant	<i>Ribes rubrum</i>	#	#	
1707	Field Rose	<i>Rosa arvensis</i>	#	#	
1708	Dog Rose	<i>Rosa canina agg</i>	#		
1722	Soft Downey-rose	<i>Rosa mollis agg</i>		#	
1726	Dewberry	<i>Rubus caesius</i>	#		
1728	Bramble	<i>Rubus fruticosus agg</i>	#	#	
1729	Wild Raspberry	<i>Rubus ideaus</i>	#	#	
1735	Sheeps Sorrel	<i>Rumex acetosella</i>			#
1741	Clustered Dock	<i>Rumex conglomeratus</i>	#	#	
1742	Curley Dock	<i>Rumex crispus</i>	#	#	#
1748	Broad-leaved Dock	<i>Rumex obtusifolius</i>	#	#	#
1753	Wood Dock	<i>Rumex sanguineus</i>	#	#	
1788	Goat Willow	<i>Salix caprea</i>	#	#	
1793	Crack Willow	<i>Salix fragilis</i>	#	#	
1815	Elder	<i>Sambucus nigra</i>	#	#	#
1862	Annual Knawel	<i>Scleranthus annuus</i>		#	
1865	Water Figwort	<i>Scrophularia auriculata</i>	#	#	
1872	Skullcap	<i>Scutellaria galericulata</i>	#		
1896	Hoary Ragwort	<i>Senecio erucifolius</i>		#	
1899	Ragwort	<i>Senecio jacobaea</i>	#	#	#
1902	Oxford Ragwort	<i>Senecio squalidus</i>		#	#

1905	Groundsel	<i>Senecio vulgaris</i>			#
1934	Stone Parsley	<i>Sison amomum</i>	#	#	#
1939	Eastern Rocket	<i>Sisymbrium orientale</i>		#	
1947	Bittersweet	<i>Solanum nigrum</i>		#	
1952	Perennial Sow-thistle	<i>Sonchus arvensis</i>	#		#
1953	prickly Sow Thistle	<i>Sonchus asper</i>		#	#
1954	Smooth Sow-thistle	<i>Sonchus oleraceus</i>	#	#	#
1960	Rowan	<i>Sorbus aucuparia</i>	#		
1987	Corn Spurrey	<i>Spergula arvensis</i>			#
2005	Hedge Woundwort	<i>Stachys sylvatica</i>	#	#	#
2009	Lesser Stitchwort	<i>Stellaria graminea</i>	#	#	#
2010	Greater Stitchwort	<i>Stellaria holostea</i>	#	#	
2011	Common Chickweed	<i>Sellaria media</i>			#
2024	Common Comfrey	<i>Symphytum officinale</i>		#	
2033	Marsh Woundwort	<i>Stachys paulustris</i>		#	
2034	Dandelion	<i>Taraxacum officinale agg</i>	#	#	#
2069	Upright Hedge Parsley	<i>Torilis japonica</i>	#	#	
2074	Goats Beard	<i>Tragopogon pratensis</i>		#	
2080	Hop Trefoil	<i>Trifolium campestre</i>			#
2081	Lesser Trefoil	<i>Trifolium dubium</i>		#	
2091	Red Clover	<i>Trifolium pratense</i>		#	#
2092	White Clover	<i>Trifolium repens</i>	#	#	#
2109	Colts Foot	<i>Tussilago farfara</i>	#	#	
2111	Bulrush	<i>Typha latifolia</i>	#	#	
2119	Wych Elm	<i>Ulmus glabra</i>	#	#	
2123	Cornish Elm	<i>Ulmus cornubiensis</i>		#	
2126	Common Nettle	<i>Urtica dioica</i>	#	#	#
2128	Small Nettle	<i>Urtica urens</i>		#	
2163	Blue Water-speedwell	<i>Veronica anagallis-aquatica</i>	#		
2166	Brooklime	<i>Veronica beccabunga</i>	#		#
2168	Germander speedwell	<i>Veronica chamaedrys</i>	#	#	
2169	Slender Speedwell	<i>Veronica filiformis</i>	#		
2172	Wood Speedwell	<i>Veronica montana</i>	#	#	
2176	Grey Field Speedwell	<i>Veronica polita</i>		#	#
2185	Guelder Rose	<i>Viburnum opulus</i>	#		
2189	Tufted Vetch	<i>Vicia cracca</i>	#	#	#
2191	Hairy Tare	<i>Vicia hirsuta</i>		#	
2197	Common Vetch	<i>Vicia sativa</i>	#		#
2198	Bush Vetch	<i>Vicia sepium</i>	#	#	#
2202	Smooth Tare	<i>Vicia tetrasperma</i>		#	#
2206	Field Pansey	<i>Viola arvensis</i>		#	#
2214	Sweet Violet	<i>Viola odorata</i>		#	
2217	Early Dog-violet	<i>Viola reichenbachiana</i>	#		
2218	Common Dog-violet	<i>Viola riviniana</i>	#		
2249	Water Starwort	<i>Callitriche stagnalis agg</i>	#		

Fungi

Species recorded on and in close proximity to the reserve.

Clitocybe clavipes
Clitocybe phaeocephala
Conocybe filaris
Coprinus lagopus
Coprinus plicatilis
Coprinus sylvaticus
Crepidotus variabilis
Entoloma rhodopolium
Hebeloma crustuliniforme
Lepista nuda
Lepista saeva
Macrolepiota procera
Marasmius epiphyllus
Melanoleuca melaleuca
Mycena filipes
Mycena galericulata
Mycena galopus var. candida
Mycena vitilis
Pleurotus pulmonarius
Pluteus cervinus
Psathyrella subbalteus
Russula cyanoxantha
Tricholoma album
Tricholoma terreum
Tubaria furfuracea
Daedalopsis confragosa
Datronia mollis
Diatrype disciformis
Ganoderma applanatum
Heterobasidium annosum
Lenzites betulina
Peniophora lycii
Phlebia merismoides
Polyporus varius
Stereum hirsutum
Trametes/Coriolus versicolor
Postia/Tyromyces styptica
Lycoperdon pyriforme
Phallus impudicus
Scleroderma citrinum
Auricularia auricula-judae
Daldinia concentrica
Tremella sp.
Xylaria hypoxylon
Xylaria polymorpha

Dragonflies & Damselflies

Banded Demoiselle <i>Calopteryx splendens</i>	Occasional
Large Red Damselfly <i>Pyrrhosoma nymphula</i>	Frequent
Azure Damselfly <i>Coenagrion puella</i>	Frequent
Common Blue Damselfly <i>Enallagma cyathigera</i>	Frequent
Blue Tailed Damselfly <i>Ischnura elegans</i>	Frequent
Migrant Hawker <i>Aeshna mixta</i>	Occasional
The Southern Hawker <i>Aeshna cyanea</i>	Frequent
The Brown Hawker <i>Aeshna grandis</i>	Frequent
The Emperor Dragonfly <i>Anax imperator</i>	Frequent
Four-spotted Chaser <i>Libellula quadrimaculata</i>	Rare
The Broad-Bodied Chaser <i>Libellula depressa</i>	Frequent
Black-Tailed Skimmer <i>Orthetrum cancellatum</i>	Frequent
The Common Darter <i>Sympetrum striolatum</i>	Frequent
Ruddy Darter <i>Sympetrum sanguineum</i>	Occasional

Grasshoppers & Bushcrickets

Oak Bush-cricket <i>Meconema thalassinum</i>	Frequent
Dark Bush-cricket <i>Pholidoptera griseoptera</i>	Frequent
Roesel's Bush-cricket <i>Metrioptera roeselii</i>	Abundant
Long-winged Cone Head <i>Conocephalus discolor</i>	Abundant
Speckled Bush-cricket <i>Leptophyes punctatissima</i>	Frequent
Slender Ground-hopper <i>Tetrix subulata</i>	Frequent / local
Common Green Grasshopper <i>Omocestus viridulus</i>	Frequent / local
Field Grasshopper <i>Chorthippus brunneus</i>	Frequent
Meadow Grasshopper <i>Chorthippus parallelus</i>	Frequent

Beetles

Violet Ground Beetle

Lesser Stag Beetle

Butterflies

Essex Skipper <i>Thymelicus lineola</i>	Frequent
Small Skipper <i>Thymelicus sylvestris</i>	Abundant
Large Skipper <i>Ochlodes venata</i>	Frequent
Grizzled Skipper <i>Pyrgus malvea</i>	Rare
Brimstone <i>Gonepteryx rhamni</i>	Frequent
Large White <i>Pieris brassicae</i>	Abundant
Small White <i>Pieris rapae</i>	Abundant
Green-veined white <i>Pieris napi</i>	Abundant
Orange Tip <i>Anthocharis cardamines</i>	Frequent
Purple Hairstreak <i>Quercusia quercus</i>	Frequent
White-Letter Hairstreak <i>Strymonidia w-album</i>	Occasional
Small Copper <i>Lycaena phlaeas</i>	Occasional
Brown Argus <i>Aricia agestis</i>	Occasional
Common Blue <i>Polyommatus icarus</i>	Frequent
Holly Blue <i>Celastrina argiolus</i>	Occasional
White Admiral <i>Ladoga camilla</i>	Rare
Red Admiral <i>Vanessa atalanta</i>	Frequent
Painted Lady <i>Cynthia cardui</i>	Occasional
Small Tortoiseshell <i>Aglais urticae</i>	Abundant
Peacock <i>Inachis io</i>	Abundant
Comma <i>Polygonia c-album</i>	Frequent
Speckled Wood <i>Pararge aegeria</i>	Frequent
Gatekeeper <i>Pyronia tithonus</i>	Abundant

Meadow Brown <i>Maniola jurtina</i>	Abundant
Small Heath <i>Coenonympha pamphilus</i>	Occasional to rare
Ringlet <i>Aphantopus hyperantus</i>	Frequent
Marbled White <i>Melanargia galathea</i>	Rare
Clouded Yellow <i>Colias croceus</i>	Rare

Moths

- Flame Shoulder** *Ochropleura plecta*
Black Arches *Lymantria monacha*
Orange Swift *Hepialus sylvina*
Scarce Fooman *Eilema complana*
The Clay *Mythimna ferrago*
Small Rivulet *Perizoma alchemillata*
Mother of Pearl *Botys ruralis*
Silver Y *Aoutgrapha gamma*
Common Carpet *Epirrhoe alternata alternata*
Buff Arches *Habrosyne pyritoides*
Lesser Yellow Underwing *Noctua comes*
Puss Moth *Cerura vinula*
Ruby Tiger *Phragmatobia fuliginosa fuliginosa*
Oak Hook Tip *Drepana binaria*
The Dun-Bar *Cosmia trapezina*
Double Square Spot *Xestia triangulum*
Round-winged Muslin *Thumatha senex*
Riband Wave *Idaea aversata*
Dark Arches *Apamea monoglypha*
Common Wainscot *Mythimna pallens*
Common Quaker *Orthosia cerasi*
Dingy Footman *Eilema griseola*
Sallow Kitten *Furcula furcula*
Broad-bordered Yellow Underwing *Noctua fimbriata*
The Spectacle *Abrostola tripartita*
Lunar-spotted Pinion *Cosmia pyralina*
Dotted Rustic *Rhyacia simulans*
Yellow Tail *Euproctis similis*
White-point *Mythimna aldipuncta*
Grey Dagger *Acronicta psi*

Large Yellow Underwing *Noctua pronuba*
Small Angled Shades *Euplexia lucipara*
Dot Moth *Melanchra persicariae*
Plain Wave *Idaea straminata*
Peppered Moth *Biston betularia*
Great Brocade *Eurois occulata*
Yellow Shell *Camptogramma bilineata bilineata*
Pebble Hook-tip *Drepana falcataria falcataria*
Great Oak Beauty *Hypomecis roboraria*
Pine Hawk Moth *Hyloicus pinastri*
Ingrailed Clay *Diarsia mendica mendica*
Twin Spot Carpet *Perizoma didymata didymata*
Plain Pug *Eupithecia simpliciata*
Sharp Angled Carpet *Euphyia unangulata*
Foxglove Pug *Eupithecia pulchellata pulchellata*
Lime-speck Pug *Eupithecia centaureata*
Garden Dart *Euxoa nigricans*
Long Horned Moth *Adelidae*
Mother Shipton *Callistege mi*
Clouded Border *Lomaspilis marginata*
The Olive *Ipimorpha subtusa*
The Mallow *Larentia clavaria*
Lesser Common Rustic *Mesapamea didyma*
Triple Spotted Clay *Xestia ditrapezium*
Bard Yellow *Cidaria fulvata*
Brimstone Moth *Opisthograptis luteolata*
Blotched Emerald *Combaena bajularia*
Heart and Dart *Agrotis exclamationis*
Clouded Silver *Lomographa temerata*
Buff Ermie *Spilosoma luteum*
Elephant Hawk Moth *Deilephila elpenor*
Common White Wave *Cabera pusaria*
Mottled Beauty *Alcis repandata*

White-spotted Pug *Eupithecia tripunctaria*
Green Pug *Chloroclystis rectangulata*
Rufous Minor *Oligia versicolor*
Brindled White-spot *Paradarisa extersaria*
Hebrew Character *Orthosia gothica*
Small Emerald *Hemistola chrysoprasaria*
Burnished Brass *Diachrysia chrysitis*
Broken-barred Carpet *Electrophaes corylata*
Old Lady *Mormo maura*
Swallow-tailed Moth *Ourapteryx sambucaria*
The Snout *Hypena crassalis*
Grey Arches *Polia nebulosa*
Marbled Beauty *Cryphia domestica*
Dwarf Cream Wave *Idaea fuscovenosa*
Lesser Broad-bordered Yellow Underwing *Noctua janthe*
Pale Prominent *Pterostoma palpina*
Iron Prominent *Notodonta dromedaries*
Shaded Broad-bar *Scotopteryx chenopodiata*
Square-spot Rustic *Xestia xanthographa*

Amphibians

Common Frog <i>Rana temporaria</i>	Frequent
Smooth Newt <i>Triturus vulgaris</i>	Occasional
Common Toad <i>Bufo bufo</i>	Occasional
Great Crested Newt <i>Triturus cristatus</i>	Rare

Reptiles

Grass Snake <i>Natrix natrix</i>	Frequent
Slow Worm <i>Anguis fragilis</i>	Frequent

Mammals

Hedgehog <i>Erinaceus europaeus</i>	Occasional
Mole <i>Talpa europaea</i>	Frequent
Common shrew <i>Sorex araneus</i>	Abundant
Pigmy shrew <i>Sorex minutus</i>	Abundant
Water Shrew <i>Neomys fodiens</i>	Frequent
Pipistrelle Bat 55 <i>Pipistrellus pygmaeus</i>	Abundant
Pipistrelle Bat 45 <i>Pipistrellus pipistrellus</i>	Abundant
Daubenton <i>Myotis daubentoni</i>	Occasional
Brown Long Eared <i>Plecotus auritus</i>	Frequent
Natterers <i>Myotis nattereri</i>	Occasional
Serotine <i>Eptesicus serotinus</i>	Occasional
Noctule Bat <i>Nyctalus noctula</i>	Occasional

Rabbit <i>Oryctolagus cuniculus</i>	Frequent
Brown Hare <i>Lepus europaeus</i>	Rare
Grey Squirrel <i>Sciurus carolinensis</i>	Abundant
Bank Vole <i>Clethrionomys glareolus</i>	Abundant
Field Vole <i>Microtus agrestis</i>	abundant
Water Vole <i>Arvicola terrestris</i>	Occasional
Wood Mouse <i>Apodemus sylvaticus</i>	Dominant
Yellow-Necked Mouse <i>Apodemus flavicollis</i>	Occasional
Harvest mouse <i>Micromys minutus</i>	Abundant
Brown rat <i>Rattus norvegicus</i>	Frequent
Fox <i>Vulpes vulpes</i>	Frequent
Stoat <i>Mustela erminea</i>	Occasional
Weasel <i>Mustela nivalis</i>	Occasional
Polecat <i>Mustela putorius</i>	Rare
American Mink <i>Mustela vison</i>	Rare
Badger <i>Meles meles</i>	Occasional
Fallow deer <i>Dama dama</i>	Occasional
Muntjac <i>Muntiacus reevesi</i>	Frequent
Roe deer <i>Capreolus capreolus</i>	Rare

Birds

Cormorant <i>Phalacrocorax carbo</i>	Frequent
Grey Heron <i>Ardea cinerea</i>	Frequent
Mute Swan <i>Cygnus olor</i>	Occasional
Canada Goose <i>Branta canadensis</i>	Frequent
Teal <i>Anas crecca</i>	Occasional
Mallard <i>Anas platyrhynchos</i>	Frequent
Tufted Duck <i>Aythya fuligula</i>	Occasional
Goosander <i>Mergus merganser</i>	Rare
Sparrowhawk <i>Accipiter nisus</i>	Frequent
Buzzard <i>Buteo buteo</i>	Occasional
Honey Buzzard <i>Pernis apivorus</i>	Rare
Kestrel <i>Falco tinnunculus</i>	Frequent
Hobby <i>Falco subbuteo</i>	Rare
Red legged Partridge <i>Alectoris rufa</i>	Breeding record Frequent
Grey Partridge <i>Perdix perdix</i>	Breeding record Frequent
Pheasant <i>Phasianus colchicus</i>	Breeding record Abundant
Moorhen <i>Gallinula chloropus</i>	Frequent
Golden Plover <i>Pluvialis apricaria</i>	Rare
Lapwing <i>Vanellus vanellus</i>	Frequent
Common Snipe <i>Gallinago gallinago</i>	Rare
Jack Snipe <i>Lymnocyptes minimus</i>	Rare
Woodcock <i>Scolopax rusticola</i>	Occasional
Black headed Gull <i>Larus ridibundus</i>	Frequent

Lesser Black backed Gull <i>Larus fuscus</i>	Occasional
Herring Gull <i>Larus argentatus</i>	Occasional
Great Black backed Gull <i>Larus marinus</i>	Occasional
Common Gull <i>Larus canus</i>	Occasional
Kittiwake <i>Rissa tridactyla</i>	Rare
Common Tern <i>Sterna hirundo</i>	Frequent
Stock Dove <i>Columba oenas</i>	Frequent
Wood Pigeon <i>Columba palumbus</i>	Breeding record Abundant
Collard Dove <i>Streptopelia decaocto</i>	Breeding record Frequent
Turtle Dove <i>Streptopelia turtur</i>	Occasional
Cuckoo <i>Cuculus canorus</i>	Frequent
Barn Owl <i>Tyto alba</i>	Rare
Little Owl <i>Athene noctua</i>	Occasional
Tawny Owl <i>Strix aluco</i>	Frequent
Swift <i>Apus apus</i>	Frequent
Kingfisher <i>Alcedo atthis</i>	Occasional
Green Woodpecker <i>Picus viridis</i>	Breeding record Frequent
Great Spotted Woodpecker <i>Dendrocopus major</i>	Breeding Record Frequent
Lesser spotted Woodpecker <i>Dendrocopus minor</i>	Occasional
Skylark <i>Alauda arvensis</i>	Breeding Record Frequent
Swallow <i>Hirundo rustica</i>	Frequent
Sand Martin <i>Riparia riparia</i>	Occasional
House Martin <i>Delichon urbica</i>	Frequent
Meadow Pipit <i>Anthus pratensis</i>	Frequent

Grey Wagtail <i>Motacilla cinerea</i>	Frequent
Pied Wagtail <i>Motacilla alba</i>	Frequent
Wren <i>Troglodytes troglodytes</i>	Breeding record Abundant
Dunnock <i>Prunella modularis</i>	Breeding record Abundant
Robin <i>Erithacus rubecula</i>	Breeding record Abundant
Blackbird <i>Turdus merula</i>	Breeding record Abundant
Fieldfare <i>Turdus pilaris</i>	Frequent
Song Thrush <i>Turdus philomelos</i>	Breeding record Frequent
Mistle Thrush <i>Turdus viscivorus</i>	breeding record Frequent
Redwing <i>Turdus iliacus</i>	Frequent
Grasshopper Warbler <i>Locustella naevia</i>	Rare
Sedge Warbler <i>Acrocephalus schoenobaenus</i>	Rare
Lesser Whitethroat <i>Sylvia curruca</i>	Occasional
Whitethroat <i>Sylvia communis</i>	Breeding record Frequent
Blackcap <i>Sylvia atricapilla</i>	breeding record Abundant
Chiff Chaff <i>Phylloscopus collybita</i>	Abundant
Willow warbler <i>Phylloscopus trochilus</i>	Frequent
Goldcrest <i>Regulus regulus</i>	Frequent
Spotted Flycatcher <i>Muscicapa striata</i>	Occasional
Pied Flycatcher <i>Ficedula hypoleuca</i>	Rare
Long tailed Tit <i>Aegithalos caudatus</i>	Breeding record Abundant
Marsh Tit <i>Parus palustris</i>	Occasional
Willow Tit <i>Parus montanus</i>	Rare
Coal Tit <i>Parus ater</i>	Frequent
Blue Tit <i>Parus caeruleus</i>	Breeding record Dominant

Great Tit <i>Parus major</i>	Breeding record Dominant
Nuthatch <i>Sitta europaea</i>	Breeding record Frequent
Treecreeper <i>Certhia familiaris</i>	Frequent
Jay <i>Garrulus glandarius</i>	Frequent
Magpie <i>Pica pica</i>	Breeding record Dominant
Jackdaw <i>Corvus monedula</i>	Frequent
Rook <i>Corvus frugilegus</i>	Occasional
Carrion Crow <i>Corvus corone</i>	Breeding record Abundant
Starling <i>Sturnus vulgaris</i>	Abundant
House Sparrow <i>Passer domesticus</i>	Abundant
Tree Sparrow <i>Passer montanus</i>	Rare
Chaffinch <i>Fringilla coelebs</i>	Breeding record Abundant
Brambling <i>Fringilla montifringilla</i>	Frequent
Greenfinch <i>Carduelis chloris</i>	Breeding record Abundant
Goldfinch <i>Carduelis carduelis</i>	Frequent
Siskin <i>Carduelis spinus</i>	Frequent
Linnet <i>Acanthis carduelis</i>	Frequent
Redpoll <i>Acanthis flammea</i>	Occasional
Bullfinch <i>Pyrrhula pyrrhula</i>	Breeding record Frequent
Hawfinch <i>Coccothraustes coccothraustes</i>	Occasional
Yellowhammer <i>Emberiza citrinella</i>	Frequent
Reed Bunting <i>Emberiza schoeniclus</i>	Frequent
Corn Bunting <i>Emberiza calandra</i>	Rare
Nightingale <i>Luscinia megarhynchos</i>	Rare

Bird Ringing

The British Trust for Ornithology runs the national ringing scheme. Data collected from the Commons LNR, is returned to them annually, by the licensed bird ringers ringing on the site. A summary of this data is included

Bird ringing in the area of the reserve has been carried out since 1995: data has been kept since that time. The first site was the feeding station in the school nature area and included nest box records around the grounds.

Ringing is carried out throughout the year in all habitats. Winter feeding stations have been in use on Windmill Hill and Howlands Meadow since the winter of 1997/98 and continued to the winter of 2008/9. They have been very successful in attracting birds into the vicinity of pre erected mist nets.

Funding for ringing has been from Thames Water Conservation and money raised by Commonswood Nature Watch. The money has been used to purchase rings, equipment and feed.

Ringing on the area of Windmill Hill has proved very important for farmland bird records. The data that is collected over long time periods is very important; it gives an indication of trends for individual species and an indication of the success of management techniques. .

Subsequent management of the arable area of Windmill Hill must take this aspect of recording into consideration in the coming years even though there is a cost of around £700 for the annual arable management