ECOLOCATION

Protected Species Surveys for Development

Ryton Organic Gardens Wolston Lane Ryton-on-Dunsmore Warwickshire CV8 3LG 02476 217727 www.gbae.co.uk admin@gbae.co.uk

Ecological Appraisal

of

Land off
Clifton Road
Deddington
OX15 0TH

For

Banner Homes

(31st May 2013)

CONTENTS

SECTION

Report Author: Rebecca Golder ACIEEM
Report Date: 31/05/13
Quality checked by: Anna Swift MCIEEM
Quality check date: 31/05/13

Please note that this report contains information in relation to protected species which should remain confidential

Summary

- An Ecological Appraisal of an area of land was carried out at Land off Clifton Road, Deddington on 8th May 2013.

- The proposed development was for the erection of housing.

- The site was primarily pasture field with defunct hedgerow and scattered trees.

- The proposed development will impact species-poor, semi-improved grassland, scattered scrub, tall ruderal vegetation and refuse that are suitable for reptile, polecat, hedgehog, amphibians and ground nesting birds. Some of the potential impacts to nesting birds and bats can be avoided if boundary features and scattered trees remain untouched and protected during the course of works.

- A further detailed reptile survey is recommended along with sensitive working practices.

1.0 INTRODUCTION

1.1 PURPOSE OF STUDY

ECOLOCATION were commissioned by Banner Homes to undertake an ecological assessment of an area of land off Clifton Road, Deddington which is understood will be subject to a future planning application.

1.2 SURVEY AIMS

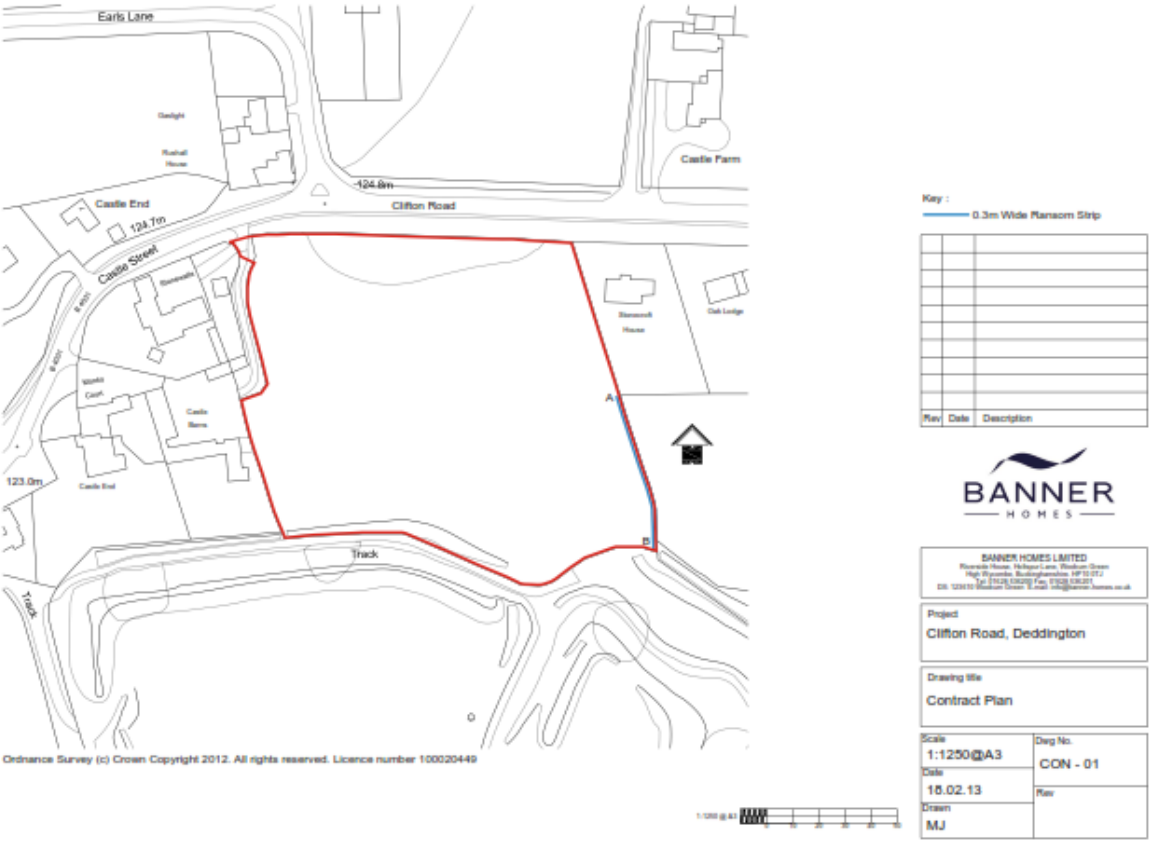
The aims of the survey were to:

- provide a description of the habitats present on Site
- identify the potential for the presence of protected species on Site
- determine the need for further ecological surveys
- assess the ecological impact of the proposals
- identify any ecological constraints/opportunities on Site

2.0 SITE LOCATION

2.1 SITE

The site (grid ref. SP 47144 31723) was a plot of land located south of the intersection of Earls Lane, Clifton Road and Castle Street, to the east of the village of Deddington, Oxfordshire. Immediately to the west were residential properties of the village, whilst to the north, east and south was adjacent open countryside of arable fields and pastoral land.



2.2 SCOPE

The survey sought to identify the potential for protected species on Site including:

- Badger - areas that might be used by badger *(Meles meles)* for foraging and sett building. Incidental foraging signs, tree scratching, paths, latrines and setts were recorded if found (Harris *et al*., 1989). A 30m buffer of the whole Site was also surveyed where practicable, most of which was viewed from the Site boundaries.
- Reptiles - areas that could be used for insolation, shelter, foraging and breeding.
- Bats – Suitable trees and natural features for roosting
- Birds - areas of habitat/structures that may be used by nesting birds
- Hedgehog – evidence of hedgehog including droppings and suitable foraging and sheltering habitat.
- Brown Hare - suitable habitat such as arable fields and rough field margins together with individual animals.
- Polecat - evidence of the presence of suitable habitat such as woodland, riverbank and surrounding farmland mosaic.

The lack of hazel coppice woodland with a varied understorey of fruiting and flowering species resulted in habitats on Site being unsuitable for dormice. The lack of suitable waterbodies on site or in close proximity resulted in the site being unsuitable for great crested newt, watervole, otter and crayfish, therefore all these species were scoped out of this study.

2.3 LEGISLATION

Bats, otter, white-clawed crayfish and great crested newts
All species of British bat and their roosts (places of shelter or rest), otter, white-clawed crayfish and great crested newts are protected by law from intentional and reckless disturbance under The Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Acts 2000, and the Conservation of Habitats and Species Regulations 2010 to incorporate the European Habitats directive.

Birds
The majority of species of nesting bird are protected under the Wildlife & Countryside Act 1981 and as amended by the Countryside & Rights of Way Act 2000.

Herpetofauna
The following species are protected against sale under Section 9(5) of The Wildlife and Countryside Act 1981 which limits the animals being offered for sale, transported for sale or advertised for sale however capture, keeping or killing are not prohibited subject to other animal welfare regulations - smooth or common newt (*Triturus vulgaris*), palmate newt (*Triturus helveticus*), common frog (*Rana temporaria*) and common toad (Bufo bufo). Grass snakes (*Natrix natrix*) are however protected from international killing, injuring and sale under Sections 9(1) and 9(5) of the same legislation.

Badger
Badgers and their setts are protected under the 1992 Badgers Act, and it is illegal to carry out work which may disturb badgers without a licence from Natural England. Further information about species licensing and legislation can be obtained from the Species Licensing Service on 0117 3728000.

Hedgehog, Polecat and brown hare
UK Biological Action Plan (BAP) Priority Species.

3.0 DESK-TOP STUDY RESULTS

3.1 DESK-TOP STUDY

Prior to the ecological survey of the Site, a desk-top data gathering exercise was undertaken. The National Biodiversity Network and Magic websites were accessed for records within 1km & 10km of the Site and Thames Valley Environmental Records Centre were also contacted for information on designated Sites and protected/notable species records within a 1km radius. The results of these searches are presented in this section and Appendix 7.2.

3.1.1 Habitat connectivity and barriers

The site was bordered by Clifton Road to the north and the settlement of Deddington to the west, these features could act as a barrier to species within suitable habitats north and west of the site. The site was well connected to more suitable habitat immediately to the south via woodland and hedgerows; beyond this valuable habitat were arable fields and typically this type of habitat offers limited opportunities to protected and notable species though hedgerows and ditches connect the suitable habitat immediately south of the Site to the Rivers Cherwell and Swere and therefore, to the landscape beyond.

3.1.2 Species

The NBN and local record centre provided the following records within a 1km radius. Species scoped out of the survey and species that have not been recorded in the area are not mentioned.

Terrestrial Mammals

1km

Badger *(meles meles),* hedgehog *(Erinaceus Eurpoaeus).*

4.0 PHASE 1 HABITAT RESULTS AND EVALUATION

4.1 PHASE 1 HABITAT SURVEY

On the 8th May 2013 a walkover survey of the Site was carried out in accordance with standard methodology for Phase 1 habitat assessment (Joint Nature Conservation Committee, 1993) by a suitably experienced surveyor, Rebecca Golder. Habitats and features were classified and recorded together with target notes identifying any particular areas of ecological interest.

4.2 LIMITATIONS

May is considered to be a good time of year to assess a grassland and whilst not all botanical species on Site were in flower during the walkover survey enough were considered to be present in order to correctly class the habitats present and, therefore, the likely ecological value of the Site.

4.3 PHASE 1 HABITAT SURVEY RESULTS AND EVALUATION

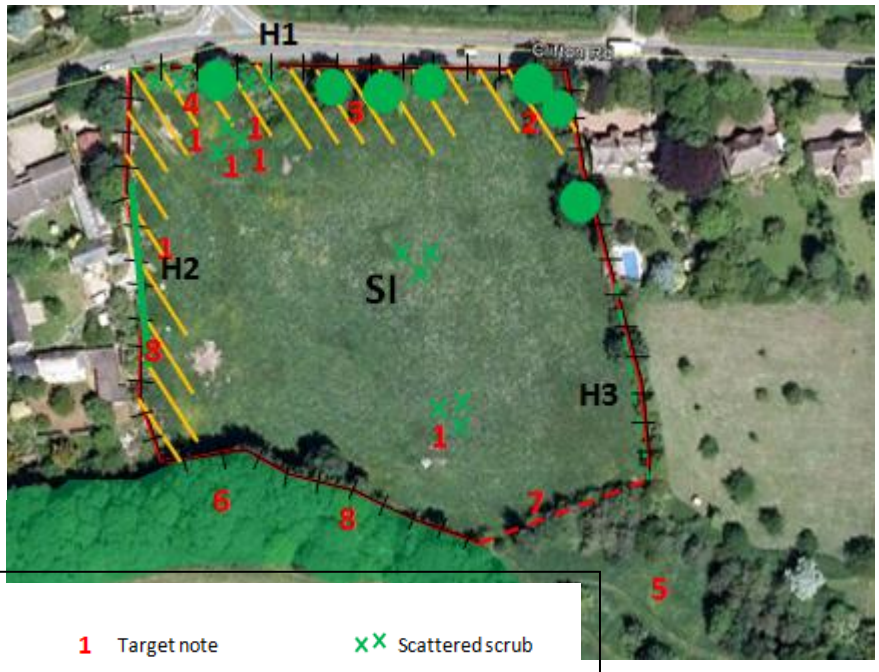
An annotated Phase 1 habitat survey map is provided in this section. This illustrates the location of all habitat types recorded at the Site together with target notes depicting features of ecological interest. Habitats were classified using Phase 1 methodology (JNCC, 1993) and were then evaluated against the IEEM EIA evaluating habitats and species guidelines (2006) in order to give them a scale of importance. Such criteria included size, species diversity, presence of Local BAP or UK BAP habitats and species together with presence of other notable species. These values can be found in the Conclusion section 5.2.1.

4.3.1 Habitats

- Species-poor, semi-improved grassland
- Defunct hedgerow
- Intact hedgerow
- Scattered scrub
- Refuse
- Scattered trees
- Drystone wall
- Tall ruderal

Target Notes:

1	Refuse log piles
2	Beech with bat potential
3	Oaks with bat potential
4	Sycamore with bat potential
5	Open, public space
6	Semi-natural, broadleaved woodland on bank
7	Dry stone wall being repaired
8	Footpath



KEY:

Survey boundary | Drystone wall | 1 Target note | Scattered scrub

Hedge | Scattered trees | Tall ruderal | Defunct hedge

Semi-natural broadleaved woodland | SI Semi-improved species-poor grassland | H1 Hedgerows

Semi-improved, species poor grassland

The majority of the site comprised species-poor, semi-improved grassland with a sward length of around 10cm. Species included, but were not limited to, frequent cock's-foot and annual meadow grass and occasional ribwort plantain.

Ecological value: LOW-MEDIUM (small size, low diversity but potential for ground nesting birds and reptiles)

Defunct and intact hedgerow

Hedgerow H1 was defunct and had been unmanaged for sometime, it was likely H1 had stretched along the whole of this boundary at some point but was now made up of scattered oak and ash with frequent gaps.

H2 was a managed intact conifer and laurel hedge and appeared to belong to the neighbouring property.

H3 was a defunct hawthorn and blackthorn hedge.

Ecological value: MEDIUM (species poor though with potential for nesting birds, roosting bats and sheltering reptiles)

H1

H2

H3

Tall ruderal

Running along the northern and western boundary was dense tall ruderal vegetation of common nettle.

Ecological value: LOW (species poor, small in size and unlikely to support protected/notable species)

Scattered trees

There were a number of mature scattered oak and ash trees within H1 and scattered mature beech within the northeast corner of the site.

Ecological value: MEDIUM-HIGH (potential for nesting birds and roosting bats as well as good potential for high invertebrate diversity given mature , native specimens).

Scattered trees within H1

Scattered beech within northeast corner

Refuse

There were a number of piles of refuse including profiled metal sheeting, timber and building refuse scattered adjacent to the northern boundary and northern scrub.

Ecological value: LOW-MEDIUM (potential for sheltering reptiles)

Scattered scrub

There were a number of areas of scattered bramble scrub across the site.

Ecological value: LOW-MEDIUM (small size, low botanical diversity but some potential for nesting birds and sheltering reptiles)

Drystone wall

Please see phase 1 map

Ecological value: MEDIUM-HIGH (good connectivity for wildlife movements through the wider countryside, especially to the south and potential insolation opportunities for reptiles).

Boundaries

Please see phase 1 map

Ecological value: LOW

4.3.2 Species

A full species list can be found in Appendix 7.2. The potential of protected species to be present on Site was given a value evaluated by the habitat suitability, records within the 1km radius and any evidence found on Site.

Bats

There were no records of bats within a 1km radius. A number of scattered trees (TN2,3) did appear to offer suitable roosting opportunities within cracks or behind peeling bark. The surrounding area offered MEDIUM foraging habitat.

Likelihood of roosting bat presence: MEDIUM

Badgers

There were 3 badger records within 1km of the Site. No evidence of badgers was recorded on Site suggesting that badgers are not even foraging in this area and so the presence of a sett is highly unlikely.

Likelihood of presence: LOW

Reptiles

There were no records of reptiles within a 1km radius of the Site. However, the grassland offered suitable foraging potential and sheltering opportunities existed within the tall ruderal vegetation, semi-improved grassland, scrub and refuse log piles. The refuse piles and drystone wall also offered suitable insolation opportunities. In addition to this, the site is well connected to suitable habitat (woodland and hedgerows) to the south.

Likelihood of presence: MEDIUM-HIGH

Amphibians

There were no records of amphibians within a 1km radius of the Site. There were no suitable waterbodies on site or within close proximity with the closest ditch being over 250m to the south with suitable sheltering habitat adjacent to the waterbody, though the site was well connected via woodland. There were some sheltering opportunities within refuse and the drystone wall.

Likelihood of presence of amphibians: LOW-MEDIUM

Birds

The Site as a whole did offer some potential for nesting birds within the hedgerow and scattered oak as well as opportunities for ground nesting birds within the semi-improved grassland, though none were recorded on the survey and there were no records of ground nesting birds within 1km.

Birds recorded on Site during survey:

Green woodpecker
Blackbird
Woodpigeon

Likelihood of presence of nesting birds in trees and hedgerow: MEDIUM-HIGH
Likelihood of ground nesting birds: LOW-MEDIUM

Hedgehog

There was one record of hedgehog within a 1km radius of the Site. No evidence of this species was recorded during the site visit however suitable connective and sheltering habitat was present in the hedgerow and tall ruderal areas within the survey boundary.

Likelihood of presence: MEDIUM

Brown Hare

There were no records of brown hare within a 1km radius of the Site. This animal does prefer an open agricultural landscape with hedgerows, although no lays were found during the survey and no individuals. The tall sward length of the grassland could deter this species. However, it was noted that there was ample opportunity for this species in the surrounding fields.

Likelihood of presence: LOW-MEDIUM

Polecat

There were no records of polecat within a 1km radius of the Site. This species tends to favour habitats comprising woodland, riverbank and surrounding farmland indicating this species could be present within the site and would most likely to use the site for foraging.

Likelihood of presence: MEDIUM

5.0 CONCLUSION

To summarise, the proposed development appears to impact the species-poor, semi-improved grassland, tall ruderal vegetation, scattered scrub and refuse piles. These habitats to be impacted were considered to offer suitable opportunities for reptiles, amphibians, hedgehogs, polecat and nesting birds. If boundary features were avoided then further survey work in respect of bats would not be required and any potential impacts to nesting birds and possible reptiles sheltering within the drystone wall would be reduced. However, to fully ascertain the potential ecological impact of the proposals, further surveys will need to be conducted of the site to establish whether reptiles are present or not. Nevertheless, general recommendations and sensitive working practises are outlined below in order to minimise biodiversity impacts based on the information available to date.

6.0 RECOMMENDATIONS

In order to ensure no nett loss of biodiversity in accordance with NPPF & Circular 06/2005 recommendations are made below:

- Following completion of the survey, based on its results, it is recommended that a **detailed reptile survey** of the Site is completed April-October. The results of this survey should then be used to inform an appropriate mitigation plan for the Site, where necessary. In the interim, the proposed development must avoid impacts to areas suitable for use by reptiles such as semi-improved grassland, scrub, hedgerow, drystone wall, refuse and tall ruderal area, and look to enhance any remaining areas through appropriate management. ECOLOCATION can provide further advice in this respect if required.

- Following the completion of the detailed reptile survey and dependent on its results, a **watching brief by a suitably experienced surveyor** should be carried out during the dismantling and removal of refuse piles

and any other habitat suitable for reptile until such a time is reached that the surveyor feels it is unlikely any reptiles are likely to be disturbed by the works.

- **The hedgerows and mature scattered trees should be retained and protected, where practicable, in accordance with BS5837:2005** 'Trees in relation to construction' for the purposes of ensuring that potential bird nesting habitat and a source of food is maintained as well as potential bat roosting habitat.

- **Should the proposed development anticipate any impacts to the mature scattered trees these should be subject to a detailed investigation (by a licensed ecologist) to determine the presence or otherwise of roosting bats.** Should any evidence of bats be found, an appropriate mitigation strategy should be designed to minimise impacts and ensure no net biodiversity loss.

- **Should the proposed development anticipate any impacts to trees, scrub, tall ruderal or the species-poor, semi-improved grassland (either directly or indirectly via increased noise/vibration levels within 10m of these habitats), these should be surveyed for nesting birds (the majority of species of which are protected by law) immediately prior to commencement of works** by a person competent to do so and due vigilance should also be maintained during construction to ensure that no breeding birds are disturbed during the construction process should nesting commence thereafter. Birds typically nest between March-September inclusive.

- Should evidence of protected or notable species (i.e. hedgehogs, polecat, reptiles or newts) be discovered during works ECOLOCATION or the local office of Natural England should be contacted for advice.

- It should be noted that further recommendations and enhancements may be made, following the detailed reptile survey.

The following, more general, recommendations are also made in order to maintain and/or enhance the opportunities for other protected or notable species on Site:

- Ecological enhancements at the Site are also to be encouraged, though not an obligation. Such enhancements could include infill planting of the existing hedgerows with native trees and shrubs appropriate to the landscape character in order to improve their species diversity and to increase the potential of use by other wildlife associated with this habitat type as well as the installation of bird nesting boxes. ECOLOCATION can be contacted for further information regarding this.

7.0 APPENDICES

7.1 REFERENCES

Bat Workers Manual, JNCC, 2004 3rd edition
BSI (2005) *Trees in Relation to Construction. BS 5837:2005*
The Conservation of Habitats and Species Regulations (2012)
JNCC (1993) *Handbook for Phase 1 Habitat Survey: A technique for environmental audit*. Joint Nature Conservation Committee, Peterborough.
IEA (1995) *Guidelines for Baseline Ecological Assessment*. Institute of Environmental Assessment, E & FN Spon.
National Planning Policy Framework 2012
Circular 06/2005 Biodiversity and Geological Conservation – Statutory Obligations and Their Impact Within the Planning System
RSPB www.rspb.org.uk
Birds of Conservation Concern 3: The Population Status of Birds in the UK, Channel Islands and the Isle of Man (Various, 2009)
Birds of Northern Europe (2010) Birdguides iPhone App
Stace, C (1997) *New flora of the British Isles*. Cambridge University Press
UK BAP www.ukbap.org.uk
Wildlife & Countryside Act (1981) HMSO
www.magic.gov.uk
Thames Valley Environmental Record Centre
Rose, Francis (2006) The Wildflower Key – How to identify wild flowers trees and shrubs in Britain and Ireland

APPENDIX 7.2

SPECIES LIST

Flora

Hedge Garlic	-	*Alliaraia petiolata*
Cow Parsely	-	*Anthriscus sylvestris*
Ivy	-	*Hedera helix*
Ground Ivy	-	*Glechoma hederacea*
Common Nettle	-	*Urtica dioica*
Cleaver	-	*Galium aparine*
Cuckoo Pint	-	*Arum italicum/maculatum*
White Deadnettle	-	*Lamium album*
Jew's Ear	-	*Auricularia auricular-judae*
Forget-me-not	-	*Myosotis* sp.
Hogweed	-	*Heracleum sphondylium*
Broad-leaved Dock	-	*Rumex obtusifolius*
Willow	-	*Salix* sp.
Cock's Foot	-	*Dactylis* sp.
Lesser Celandine	-	*Ranunculus ficaria*
Creeping Buttercup	-	*Ranunculus repens*
Foxtail Grass	-	*Alopecurus* sp.
Blackthorn	-	*Prunus spinosa*
Hawthorn	-	*Crataegus* sp.
Beech	-	*Fagus* sp.
Elder	-	*Sambucus* sp.
Ash	-	*Fraxinus* sp.
Oak	-	*Quercus robur*
Sycamore	-	*Acer pseudoplatanus*
Conifer	-	Coniferophyta
Privet		
Horse Chestnut		

Fauna

Green Woodpecker	-	*Picus viridis*
Blackbird	-	*Turdus merula*

APPENDIX 7.3

Common Name	Scientific Name	Abundance/Stage/ Record Type	Date	Grid Ref	Grid Ref Qualifier	Location	Data Origin	UK Legislation	European Legislation	Global IUCN Red List	UK BAP Status 2007	NERC Act 2006	2009 BOCC Status
Freshwater Crayfish	Austropotamobius pallipes		25/09/1980	SP4632	1 km record	River Swere	TW	Schedule 5, parts 1, 5(a) and (b) (W&C Act 1981)		post94:VU	Priority Sp.	Section 41 Sp.	
Wall	Lasiommata megera	Adults	02/09/1984	SP468317		Deddington Churchyard	LN				Priority Sp.	Section 41 Sp.	
European Honey-buzzard	Pernis apivorus	1	30-Sep-00	SP4631	1 km record	Deddington	OOS	Schedule 1 (W&C Act 1981)	Birds Dir (An 1)				Amber List
Common Kestrel	Falco tinnunculus	2	14-Jun-03	SP4632	1 km record	Deddington	OOS						Amber List
Common Swift	Apus apus	Pairs, nest record	01/05/2009-30/07/2009	SP46893153		Orchard House, Hopcraft Lane, Deddington	CDC						Amber List
Common Swift	Apus apus	nest	01/05/2010-30/07/2010	SP46893153		Orchard House, Hopcraft Lane, Deddington	LN						Amber List
Sky Lark	Alauda arvensis	13	04-May-03	SP4632	1 km record	Deddington	OOS				Priority Sp.	Section 41 Sp.	Red List
Sky Lark	Alauda arvensis	10	14-Jun-03	SP4632	1 km record	Deddington	OOS				Priority Sp.	Section 41 Sp.	Red List
Sky Lark	Alauda arvensis	1	04-May-03	SP4632	1 km record	Deddington	OOS				Priority Sp.	Section 41 Sp.	Red List
Black Redstart	Phoenicurus ochruros	1	23-Oct-00	SP4631	1 km record	Confidential	OOS	Schedule 1 (W&C Act 1981)				Section 41 Sp.	Amber List
Black Redstart	Phoenicurus ochruros	1	30-Mar-01	SP4631	1 km record	Confidential	OOS	Schedule 1 (W&C Act 1981)				Section 41 Sp.	Amber List
Common Starling	Sturnus vulgaris	3	04-May-03	SP4632	1 km record	Deddington	OOS				Priority Sp. (Research only)	Section 41 Sp.	Red List
Common Starling	Sturnus vulgaris	15	14-Jun-03	SP4632	1 km record	Deddington	OOS				Priority Sp. (Research only)	Section 41 Sp.	Red List
Common Starling	Sturnus vulgaris		23/09/1986	SP471315		Deddington Castle	BBOWT				Priority Sp. (Research only)	Section 41 Sp.	Red List
Eurasian Tree Sparrow	Passer montanus	2	14-Jun-03	SP4632	1 km record	Deddington	OOS				Priority Sp.	Section 41 Sp.	Red List
Eurasian Tree Sparrow	Passer montanus	2	14-Jun-03	SP4632	1 km record	Deddington	OOS				Priority Sp.	Section 41 Sp.	Red List
Eurasian Tree Sparrow	Passer montanus	10	04-May-03	SP4632	1 km record	Deddington	OOS				Priority Sp.	Section 41 Sp.	Red List
Common Linnet	Carduelis cannabina	3	04-May-03	SP4632	1 km record	Deddington	OOS				Priority Sp.	Section 41 Sp.	Red List
Common Linnet	Carduelis cannabina	3	04-May-03	SP4632	1 km record	Deddington	OOS				Priority Sp.	Section 41 Sp.	Red List
Common Linnet	Carduelis cannabina	1	14-Jun-03	SP4632	1 km record	Deddington	OOS				Priority Sp.	Section 41 Sp.	Red List
Common Linnet	Carduelis cannabina	7	14-Jun-03	SP4632	1 km record	Deddington	OOS				Priority Sp.	Section 41 Sp.	Red List
Yellowhammer	Emberiza citrinella	10	04-May-03	SP4632	1 km record	Deddington	OOS				Priority Sp.	Section 41 Sp.	Red List
Yellowhammer	Emberiza citrinella	15	14-Jun-03	SP4632	1 km record	Deddington	OOS				Priority Sp.	Section 41 Sp.	Red List
Yellowhammer	Emberiza citrinella	5	04-May-03	SP4632	1 km record	Deddington	OOS				Priority Sp.	Section 41 Sp.	Red List
Corn Bunting	Emberiza calandra	1	14-Jun-03	SP4632	1 km record	Deddington	OOS						Red List
West European Hedgehog	Erinaceus europaeus	1	14/05/2006	SP464318		Deddington	PTES				Priority Sp.	Section 41 Sp.	
Eurasian Badger	Meles meles	hair/fur	2006	SP46473148		Deddington (DE5)	CDC	Badger Act 1992					
Eurasian Badger	Meles meles		23/09/1986	SP471315		Deddington Castle	BBOWT	Badger Act 1992					
Eurasian Badger	Meles meles	Sett	05/04/2003	SP473316		Deddington	LN	Badger Act 1992					