

AN ECOLOGICAL SURVEY
of
LAND AT CROSSWAYS [CRS06]

for
Dorset Council
September 2021

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SUMMARY

- This report forms part of a suite of ecological surveys commissioned by Dorset Council's Strategic Planning and Natural Environment Teams. Together the survey reports form part of the evidence base for the Local Plan, containing extended Phase 1 survey information for the potential allocated sites, highlighting important habitats and the likelihood of protected species being present.
- The main field was cultivated with a maize crop at the time of the survey and is therefore judged to be of **low ecological interest**.
- The northern and southern borders of the field have wide grassy margins with a range of herbs providing nectar sources for a range of invertebrates including several associated with soils in heathland landscapes.
- The southwest hedge (264 metres) is dominated by one or more native woody species and therefore qualifies as hedgerows **Priority Habitat** and **habitat of principal importance** under Section 41 of the NERC Act (2006).

1.0 INTRODUCTION

This report forms part of a suite of ecological surveys commissioned by Dorset Council's Strategic Planning and Natural Environment Teams. Together the survey reports form part of the evidence base for the Local Plan, containing extended Phase 1 survey information for the potential allocated sites, highlighting important habitats and the likelihood of protected species being present. The surveys have been carried out by Dorset Environmental Records Centre who are working with Dorset Council to ensure that ecological data for the Local Plan process is as up-to-date as possible.

MAP 1. Site location



2.0 METHODS

The survey was undertaken at on 19th July 2021 in fine weather. The area was walked and a plant species list compiled with frequencies assigned to each species using the DAFOR scale¹. Particular attention was paid to the presence of any Section 41 or Red Listed species, and any that are on the Dorset Environmental Records Centre (DERC) lists of Dorset Notable species (DERC, 2012). Habitats present were assessed for their potential to support protected species (see Section 6.1), and visible signs for Badger such as setts, latrines and paths were looked for. Each habitat type present and any species or features of particular note were described using target notes (see Section 5.2.2).

The sites are assessed for their ecological interest at the time of the survey (see Section 6.0). Those sites assessed as being of **Low Ecological Interest** have very little interest and are generally improved grasslands or arable fields. Those of **Moderate Ecological Interest** may support some interest such as one or more Dorset Notable plant species, but do not qualify as a Site of Nature Conservation Interest (SNCI). Those of **High Ecological Interest** are of SNCI quality and are therefore an important wildlife site within a county context.

Nomenclature for plants follows Stace (2019).

The DAFOR scale records species according their abundance as follows:

D = Dominant; **A** = Abundant; **F** = Frequent; **O** = Occasional; **R** = Rare; **L** = Local (e.g. **LF** = Locally Frequent)

3.0 LEGISLATION & POLICY

3.1 LEGISLATION

The following legislation may be of relevance to the development. Full details of statutory obligations with respect to biodiversity and the planning system can be found in DCLG Circular 06/2005.

- **The Conservation of Habitats and Species (Amendments) (EU Exit) Regulations 2019:**

This transposes the EU Habitats Directive (Council Directive 92/43/EEC) into domestic law and ensures that the habitat and species protection and standards will continue to apply upon the UK's exit from the EU. The Regulations provide protection for a number of species including:

- All species of bat
- Dormouse (*Muscardinus avellanarius*)
- Great crested newt (*Triturus cristatus*).

This legislation makes it an offence to deliberately capture, kill or injure individuals of these species listed on Schedule 2 and damage or destroy their breeding site or place of shelter. It is also illegal to deliberately disturb these species in such a way as to be likely to significantly affect: (i) the ability of any significant group of the species to survive, breed or rear or nurture their young; or (ii) the local distribution or abundance of the species.

This legal protection means that where development has the potential to impact on bats, or other species of national interest, the results of a protected species survey must be submitted with a planning application.

Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) are also protected under this legislation. These are a network of sites designated for supporting habitats or species of high nature conservation importance in the European context. Any activity that has a detrimental effect on these European sites³ is made an offence under the Regulations. Where a development is likely to have a significant impact on a European site, the Regulations require a rigorous assessment of the impacts, known as an Appropriate Assessment.

- **The Wildlife and Countryside Act 1981 (and amendments):**

Protected fauna and flora are listed under Schedules 1, 5 & 8 of the Act. Species likely to be of relevance include:

- All species of **bat**. It is an offence to intentionally or recklessly disturb any bat whilst it is occupying a roost or to intentionally or recklessly obstruct access to a bat roost
- All species of **British reptile** (in particular grass snake (*Natrix helvetica*), common lizard (*Zootoca vivipara*), adder (*Vipera berus*) and slow-worm (*Anguis fragilis*)). It is illegal to kill or injure these species
- **Great crested newt**. It is illegal to obstruct access to any structure or place which great crested newts use for shelter or protection or to disturb any great crested newt while it is using such a place.

This Act also makes it an offence to intentionally kill, injure or take any wild bird or to take, damage or destroy their eggs and nests (whilst in use or being built). In addition, it is an offence to disturb any nesting bird listed on Schedule 1 or their young.

Schedule 9 of the Act lists those species for which it is an offence to plant or cause their spread. Species listed under Schedule 9 that are most likely to be encountered are Japanese knotweed (*Fallopia japonica*) and giant hogweed (*Heracleum mantegazzianum*).

Sites of Special Scientific Interest (SSSIs) are also protected under the Wildlife and Countryside Act 1981. These are a network of sites identified as being of national nature conservation importance and hence afforded legal protection.

National Nature Reserves (NNRs) are also protected under the Act (section 35 (1)) and established under the National Parks and Access to the Countryside Act 1949. These are nature reserves which are considered to be of national importance by the relevant statutory bodies i.e. Natural England, Natural resource Wales.

- **Natural Environment and Rural Communities Act (NERC) 2006:**

This Act enforces a duty on the planning authority and local council to conserve biodiversity (section 40). Additionally, section 41 encourages the local councils to be aware of the species and habitats of 'principal importance' and to act accordingly to protect and manage these habitats and species.

- **The Countryside and Rights of Way Act 2000:**

This Act strengthens nature conservation and wildlife protection through a number of mechanisms. It places a duty on Government Ministers and Departments to conserve biological diversity, provides police with stronger powers relating to wildlife crimes, and improves protection and management of SSSIs.

- **The Protection of Badgers Act 1992:**

This Act makes it an offence to wilfully take, injure or kill a badger (*Meles meles*); cruelly mistreat a badger; interfere with badger setts, sell or possess a live badger; mark or ring a badger. A licence is required for work affecting badgers and their setts.

- **Wild Mammals (Protection) Act 1996:**

This Act provides protection for all wild animals from intentional acts of cruelty.

- **Hedgerow Regulations 1997:**

These Regulations establish a set of criteria for assessing the importance of hedgerows. Where a hedgerow is deemed to be 'important' its removal is prohibited without consent from the local Planning Authority.

3.2 POLICY

The following policy is of relevance to this report:

- **National Planning Policy Framework (NPPF):**

This sets out the Government's vision for biodiversity in England with the broad aim that planning, construction, development and regeneration should maintain and enhance, restore or add to biodiversity and geological conservation interests. NPPF (2018) includes sections on legally protected species and sites (see Section 2.1).

- **Local Sites (including Sites of Nature Conservation Interest (SNCI), Local Nature Reserves (LNR), and Biological Notification Sites (BNSs)/County Wildlife Sites (CWSs)):**

These are a network of sites designated for their nature conservation importance in a local context. Although they are not afforded legal protection they contribute towards local and national biodiversity.

- **Natural England Protected Species Standing Advice:**

The standing advice is used by local authorities as a fall-back position when in pre-application consultation or during the determination period to define habitat and species survey efforts and mitigation proposals.

4.0 EXISTING DATA

The following summary is based on the desk study carried out by DERC for Dorset Council covering the Local Plan Emerging Site Allocations (DERC 2020). The species records are based on post-2010 data.

4.1 PROTECTED SPECIES

Species	Status	Distance from site	Date/s of record/s
Badger	WCA	Within 1-km radius	Post-2010
Bats	EPS; WCA	Within 1-km radius	Post-2010
Dormouse	S41; EPS; WCA	On site	2016
Otter	EPS; WCA	-	
Water Vole	S41; WCA	-	
Brown Hare	S41	-	
Hedgehog	S41		
Great Crested Newt	EPS; S41	-	
Reptiles	S41; WCA	-	

4.2 PROTECTED HABITATS

Lowland Heathland – Section 41; UK Priority Habitat 360 metres to the south

Lowland Mixed Deciduous Woodland – Section 41; UK Priority Habitat 820 metres to the southwest

Wet Woodland – Section 41; UK Priority Habitat 840 metres to the southwest

4.3 PROTECTED SITES

Dorset Heaths Special Area of Conservation (SAC) 450 metres to the south

Dorset Heathlands Special Protection Area (SPA) 450 metres to the south

Dorset Heathlands RAMSAR 450 metres to the south

Warmwell Heath Site of Special Scientific Interest (SSSI) 450 metres to the south

5.0 RESULTS

5.1 SITE DESCRIPTION

The site occupies 12.50 hectares lying to the west of Crossways and is currently used as an arable field. The soils are typical of the Poole Formation being sandy and free draining with pockets of clay producing areas that lie wet during the winter.

5.2 HABITAT DESCRIPTION

Cultivated field

The cultivated field had a maize crop at the time of the survey. At the margins of the crop and cultivated ground there are patches of arable plants, particularly Scentless Mayweed *Tripleurospermum inodorum*, with Scarlet Pimpernel *Anagallis arvensis*, Knotgrass *Polygonum aviculare*, Sun Spurge *Euphorbia helioscopia*, Field Pansy *Viola arvensis* and most notably Sharp-leaved Fluellen *Kickxia elatine*.

Field margins

Around the northern and southwest edges of the field there are wide grassy margins grading into scrub or hedges. The grassland varies in height and is shorter where there are paths used by dog walkers, here Perennial Rye-grass *Lolium perenne* is abundant with Creeping Bent *Agrostis stolonifera* and patchy White Clover *Trifolium repens*. The wider margins have areas of long grass dominated by False Oat-grass *Arrhenatherum elatius* with Cock's-foot *Dactylis glomerata* and Yorkshire Fog *Holcus lanatus*, with few herbs apart from occasional Wild Parsnip *Pastinaca sativa*, Agrimony *Agrimonia eupatoria*, Creeping Thistle *Cirsium arvense*, Spear Thistle *Cirsium vulgare*, Ragwort *Jacobaea vulgaris*, Yarrow *Achillea millefolium* and Common Cat's-ear *Hypochaeris radicata*. These areas have frequent Bramble *Rubus fruticosus* agg. and patchy Bracken *Pteridium aquilinum*. Shorter grassland is dominated by Common Bent *Agrostis capillaris* with frequent Yorkshire Fog and occasional Red Fescue *Festuca rubra*. Herbs include frequent Common Cat's-ear and Smooth Hawk's-beard *Crepis capillaris*, plus occasional White Clover, Red Clover *Trifolium pratense* and Common Centaury *Centaureum erythraea* and rare Bird's-foot-trefoil *Lotus corniculatus* and Perforate St John's-wort *Hypericum perforatum*. One plant of the local Yellow Bartsia *Parentucellia viscosa* was noted along the southwest edge.

Halfway along the northern edge is an area that lies wet in winter but was dry at the time of the survey. There are clumps of Grey Willow *Salix cinerea* surrounded by a dense stand of Soft Rush *Juncus effusus* with

scattered Compact Rush *Juncus conglomeratus* and patchy Creeping bent around the edges. Apart from a few clumps of Hemp Agrimony *Eupatorium cannabinum* there are very few herbs present.

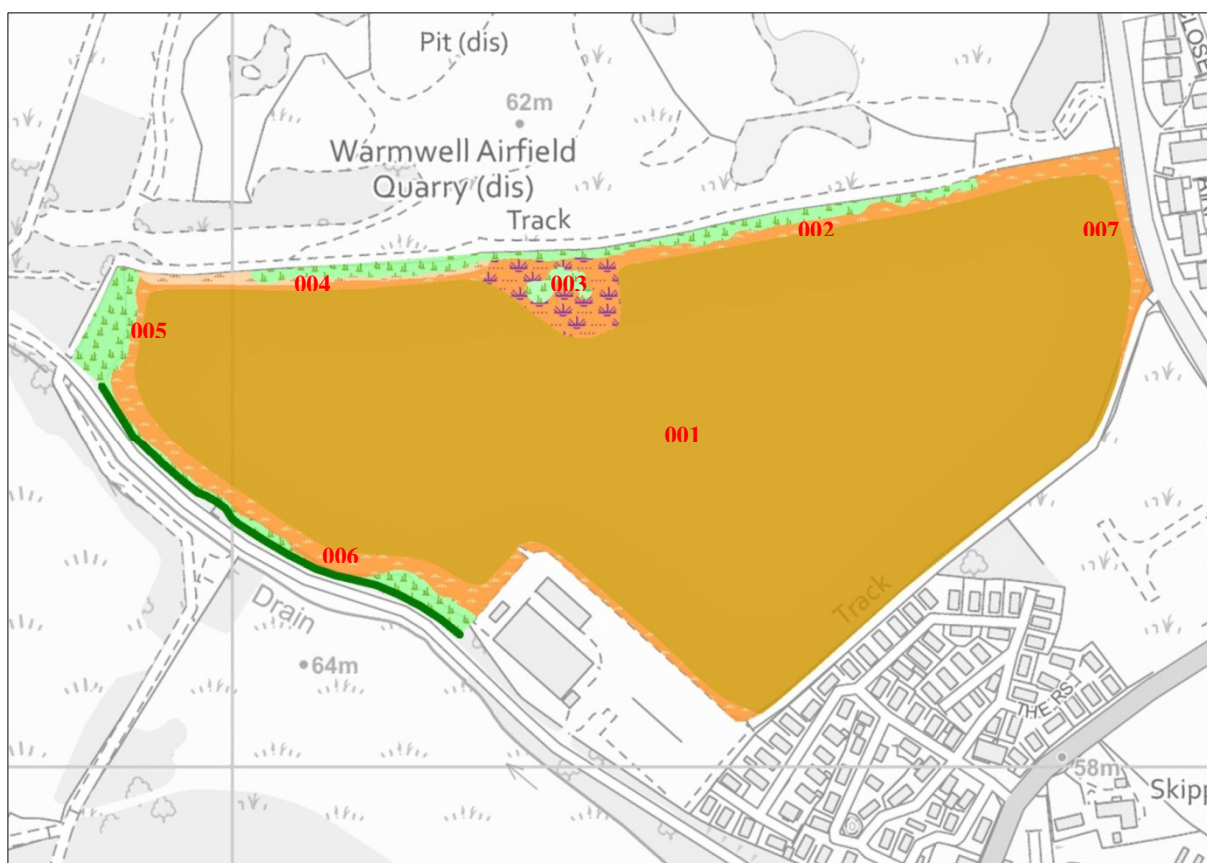
Hedgerows & scrub

Along the northern boundary a band of scrub has developed and is forming an incipient 'hedge' although it cannot be classed as a proper hedgerow. Blackthorn *Prunus spinosa*, Grey Willow *Salix cinerea* and Common Gorse *Ulex europaeus* are frequent to locally abundant with scattered small Pedunculate Oak *Quercus robur* trees and some Silver Birch *Betula pendula*. Bramble is abundant and in places is invading the adjacent grassland. Along the south-western edge is an older true hedgerow with mature Hawthorn *Crataegus monogyna* and Holly *Ilex aquifolium*, and in the northwest corner is a very small area which has been planted with Maple *Acer campestre*, Wild Cherry *Prunus avium* and Hazel *Corylus avellana*.

5.2.1 Habitat map



5.2.2 Target notes



No.	Grid Ref	Target Note
001	SY7626 8818	At the time of the survey the main field has been sown with a maize crop. The few margins of the cultivated area that have not been sprayed support several typical arable plants including Knotgrass, Scentsless Mayweed, Field Pansy and most notably the local Sharp-leaved Fluellen.
002	SY7637 8832	The northeast margin has rank grassland dominated by False Oat-grass with Cock's-foot and Yorkshire Fog, with few herbs apart from scattered Yarrow, Common Cat's-ear plus patches of Creeping Thistle. The shorter grassland along the side the path has abundant Perennial Rye-grass with patchy White Clover.
003	SY7619 8828	Winter-wet areas dominated by Soft Rush with a grassy sward of Creeping Bent between the tussocks. There are very few other species present apart from a few clumps of Hemp Agrimony. Around the edges are patches of Creeping Thistle and Fleabane,
004	SY7604 8828	The marginal grassland here is shorter. Along the path Perennial Rye-grass is abundant, but on the margin Common Bent is abundant with frequent Yorkshire Fog and occasional Sweet Vernal Grass. Herbs include frequent Ribwort Plantain and Common Cat's-ear with scattered Common Mouse-ear, Common Centaury, Yarrow, Smooth Hawk's-beard, plus a few plants of

No.	Grid Ref	Target Note
		Bird's-foot-trefoil and Perforate St John's-wort.
005	SY7592 8824	An area of scrub of Blackthorn and Hawthorn with some planted broadleaved trees and shrubs including Maple, Wild Cherry and Hazel.
006	SY7603 8814	<p>The southwest margin has a wide band of tall grassland with abundant False Oat-grass, Cock's-foot and Yorkshire Fog. Herbs include Wild Parsnip, Creeping Thistle, Spear Thistle, Ragwort and Common Fleabane which provide nectar for a range of insects including the wasp <i>Crabro cribrarius</i> and bees <i>Anthophora bimaculata</i> and <i>Colletes fodiens</i> which are characteristic of sandy ground on and around heathlands.</p> <p>Further back Bramble becomes abundant and there several stands of Bracken. The mature hedge has tall shrubs with abundant Hawthorn, plus Blackthorn, Holly and Dog Rose, with abundant Bramble on the margins.</p>
007	SY7653 8831	A line of trees and shrubs along the short eastern edge with planted Wild Cherry plus Hawthorn.

6.0 ASSESSMENT

The main field is regularly cultivated and supported a maize crop at the time of the survey and is currently of **low ecological interest**. The wide margins along the northern and western edges support a mosaic of grassland, scrub and hedges and while not supporting any particularly notable plant species has good structure for invertebrates, breeding birds and potentially foraging bats.

6.1 PROTECTED SPECIES ASSESSMENT

Species	Status	Habitat potential	Future surveys
Badger	WCA	No tracks or latrines noted	
Bats	EPS; WCA	No mature trees so little or no habitat for roosting. Good foraging along the northern and south-western edges with lots of mature shrubs and some small trees adjacent to rough grassland with bramble	Survey required
Dormouse	S41; EPS; WCA	Habitat present along the northern and south-western boundaries with mature trees, hedgerow and dense scrub with a variety of native shrubs and trees	
Otter	EPS; WCA	No suitable habitat present	
Water Vole	S41; WCA	No suitable habitat present	
Brown Hare	S41	No suitable habitat present	
Hedgehog	S41	Good habitat present along the northern and south-western boundaries	
Great Crested Newt	EPS; S41	No permanent ponds or ditches present	
Reptiles	S41; WCA	Marginal habitats ideal for Slow Worm and Common Lizard, and possibly for Grass Snake in the winter-wet area	Survey required
Breeding birds	WCA	Mature hedgerows and scrub provide suitable habitat for breeding birds	

REFERENCES

DERC 2012 *Dorset Notable Species Lists*. Dorset Environmental Records Centre, Dorchester

DERC 2020 *Local Plan Emerging Site Allocations: Ecological Data*. [Unpublished report for Dorset Council]

Stace, C.A. 2019 *New Flora of the British Isles* (4th Ed). C & M Floristics, Suffolk.

APPENDIX I: Plant species recorded July 2021

Latin Name	Common Name	Frequency
<i>Acer campestre</i>	Field Maple	Pl - H
<i>Achillea millefolium</i>	Yarrow	O-LF
<i>Agrimonia eupatoria</i>	Agrimony	O
<i>Agrostis capillaris</i>	Common Bent	F-LA
<i>Agrostis stolonifera</i>	Creeping Bent	O-LF
<i>Anagallis arvensis</i>	Scarlet Pimpernel	R
<i>Arrhenatherum elatius</i>	False Oat-grass	F-LD
<i>Bellis perennis</i>	Daisy	R
<i>Betula pendula</i>	Silver Birch	H
<i>Centaureum erythraea</i>	Common Centaury	O
<i>Cerastium fontanum</i>	Common Mouse-ear	R
<i>Cirsium arvense</i>	Creeping Thistle	O-LF
<i>Cirsium vulgare</i>	Spear Thistle	O
<i>Convolvulus arvensis</i>	Field Bindweed	R
<i>Corylus avellana</i>	Hazel	Pl - H
<i>Crataegus monogyna</i>	Hawthorn	H
<i>Crepis capillaris</i>	Smooth Hawk's-beard	O-LF
<i>Dactylis glomerata</i>	Cock's-foot	F
<i>Digitalis purpurea</i>	Foxglove	R
<i>Erigeron canadensis</i>	Canadian Fleabane	O
<i>Eupatorium cannabinum</i>	Hemp Agrimony	R
<i>Euphorbia helioscopia</i>	Sun Spurge	R
<i>Geranium dissectum</i>	Cut-leaved Crane's-bill	R
<i>Gnaphalium uliginosum</i>	Marsh Cudweed	R
<i>Hedera helix</i>	Ivy	H
<i>Heracleum sphondylium</i>	Hogweed	O-LF
<i>Holcus lanatus</i>	Yorkshire Fog	F
<i>Hypericum humifusum</i>	Trailing St John's-wort	R
<i>Hypericum perforatum</i>	Perforate St John's-wort	R
<i>Hypochaeris radicata</i>	Common Cat's-ear	O-LF
<i>Ilex aquifolium</i>	Holly	H
<i>Jacobaea vulgare</i>	Ragwort	O
<i>Juncus conglomeratus</i>	Compact Rush	R-O
<i>Juncus effusus</i>	Soft Rush	R-LA
<i>Kickxia elatine</i>	Sharp-leaved Fluellen	R-O
<i>Lolium perenne</i>	Perennial Rye-grass	O-LA
<i>Lotus corniculatus</i>	Bird's-foot-trefoil	R
<i>Parentucellia viscosa</i>	Yellow Bartsia	R
<i>Pastinaca sativa</i>	Wild Parsnip	R-O
<i>Phragmites australis</i>	Common Reed	R
<i>Plantago lanceolata</i>	Ribwort Plantain	O

Latin Name	Common Name	Frequency
<i>Polygonum aviculare</i>	Knotgrass	R-O
<i>Prunus avium</i>	Wild Cherry	PL
<i>Prunus spinosa</i>	Blackthorn	O
<i>Pteridium aquilinum</i>	Bracken	O-LA
<i>Pulicaria dysenterica</i>	Common Fleabane	R-O
<i>Quercus robur</i>	Pedunculate Oak	O
<i>Rosa micrantha</i>	Small-flowered Sweet-briar	R
<i>Rubus fruticosus</i> agg.	Bramble	F-LA
<i>Rumex crispus</i>	Curled Dock	R
<i>Salix cinerea</i>	Grey Willow	O-LA
<i>Sisymbrium officinale</i>	Hedge Mustard	O
<i>Sonchus asper</i>	Prickly Sow-thistle	R
<i>Tragopogon pratensis</i>	Goat's-beard	R
<i>Trifolium campestre</i>	Hop Trefoil	R
<i>Trifolium pratense</i>	Red Clover	R-O
<i>Trifolium repens</i>	White Clover	O-LF
<i>Tripleurospermum inodorum</i>	Scenless Mayweed	O-LF
<i>Ulex europaeus</i>	Common Gorse	O
<i>Urtica dioica</i>	Stinging Nettle	O
<i>Veronica chamaedrys</i>	Germander Speedwell	R
<i>Vicia hirsuta</i>	Hairy Tare	R
<i>Vicia tetrasperma</i>	Smooth Tare	R
<i>Viola arvensis</i>	Field Pansy	R

D = Dominant; A = Abundant; F = Frequent; O = Occasional; R = Rare; L = Local (e.g. LF = Locally Frequent)

Pl - H = planted hedge

APPENDIX II: Invertebrates recorded July 2021

Species	Common Name
Butterflies	
<i>Thymelicus sylvestris</i>	Small Skipper
<i>Pieris brassicae</i>	Large White
<i>Vanessa atalanta</i>	Red Admiral
<i>Inachis io</i>	Peacock
<i>Melanargia galathea serena</i>	Marbled White
<i>Pyronia tithonus britanniae</i>	Gatekeeper
<i>Maniola jurtina</i>	Meadow Brown
Orthoptera	
<i>Conocephalus discolor</i>	Long-winged Conehead
<i>Tettigonia viridissima</i>	Great Green Bush-cricket
<i>Metrioptera roeselii</i>	Roesel's Bush-cricket
<i>Chorthippus brunneus</i>	Common Field Grasshopper
<i>Chorthippus parallelus</i>	Meadow Grasshopper
<i>Chorthippus albomarginatus</i>	Lesser Marsh Grasshopper
Bees & Wasps	
<i>Cerceris rybyensis</i>	
<i>Crabro cribrarius</i>	
<i>Anthophora bimaculata</i>	Green-eyed Flower Bee
<i>Bombus lapidarius</i>	Red-tailed Bumble Bee
<i>Bombus pascuorum</i>	Common Carder Bee
<i>Bombus vestalis</i>	Vestal Cuckoo Bee
<i>Colletes fodiens</i>	Hairy-saddled Colletes

APPENDIX III: Photographs



FIG 1. SY7632 8832. Field margin in northeast of field with tall grassland grading into scrub with young trees



FIG 2. SY7619 8827. Seasonally wet area dominated by Soft Rush



FIG 3. SY7599 8828. Field margin in northwest of area. Shorter and slightly acid in character with Common Cat's-ear, Common Centaury and Bird's-foot-trefoil.



FIG 4. SY7593 8822. West-southwest margin with tall grassland grading into Bramble and then a mature hedgerow. The grassland and field margin has Wild Parsnip and Fleabane which important nectar sources for invertebrates.