



APPENDIX 11.7
EAST HILL, HEMPSTEAD, MEDWAY

Terrestrial Invertebrate Survey Report

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1.0 INTRODUCTION

- 1.1 Corylus Ecology Ltd has been appointed by Hume Planning Ltd to coordinate a programme of invertebrate surveys for the East Hill, Hempstead, Medway, hereinafter referred to as 'the Site'.
- 1.2 The Invertebrate Surveys have been undertaken by experienced invertebrate specialists Mike Edwards and Graeme Lyons of Edwards Ecological Surveys Ltd (EESL). This report details the methodology, results and evaluation of the invertebrate surveys undertaken in 2018.
- 1.3 The survey aimed to provide an understanding of the ecological interest and importance of the invertebrate fauna of the Site in the Hempstead Valley area, Gillingham, North Kent, as set out in Figure 1. The area is predominately arable farmland with some tree and scrub-invaded calcareous grassland, grassland which has developed over chalky soils exposed during earlier road establishments and small sections of overgrown hedgerow and secondary woodland. Capstone Farm Country Park lies to the south-east.
- 1.4 The main aims of the surveys were to:
- Undertake a terrestrial invertebrate survey in order to determine the value of the invertebrate assemblage.
 - Evaluate the conservation importance of the Site in relation to invertebrates.

2.0 METHODOLOGY

2.1 Desk Study

2.1.1 Records were sought from the Kent and Medway Biodiversity Records Centre. This included records of rare and uncommon invertebrate species. In addition, citations for local designated sites were also reviewed for information regarding invertebrates.

2.2 Survey Methodology

2.2.1 Surveys were undertaken on seven occasions spread throughout the year with all surveys completed with two surveyors with the exception of the first survey which was an initial site assessment completed by Mike Edwards:

- 5th April 2018
- 22nd April 2018
- 25th May 2018
- 26th June 2018
- 27th July 2018
- 18th August 2018
- 25th September 2018

2.2.2 The Site area was sub-divided into two survey sections either side of the minor Shawstead Road, north (Sample Area 1) and south (Sample Area 2). Surveys took place along the routes indicated, with major areas of sampling interest shown as area 1a, 1b and 1c on Figure 1.

2.2.3 An area to the south of the main survey area alongside the North Dane Way was also sampled (area 2a on Figure 1). Whilst outside the Site it was considered that this area supported habitats that had previously been present further north in Area 2 alongside the North Dane Way. In addition given its similarity with Area 1a it would provide a comparable example of habitats along this road.

2.2.4 Sampling of invertebrates was by sweeping, beating and direct observation, with suction-sampling being also used during the September visit. No specific trapping system such as pitfall trapping or malaise trapping was undertaken. The methods used were chosen to provide easily repeatable surveys with minimal impact on the invertebrates and to record a range of invertebrate groups. The recording of the following groups were concentrated on: aculeate Hymenoptera (Ants, Bees and Wasps), Diptera (Larger Brachycera, Craneflies, Hoverflies), Orthoptera (Grasshoppers and Crickets), Coleoptera (Beetles), Heteroptera (Bugs). Other groups were recorded as seen.

2.2.5 The time of day an area is surveyed can influence the results. Different areas have different aspects and degrees of insolation at different times of the day. Invertebrates are very dependent upon temperature and humidity regimes. The interplay of gradual temperature rise during the day and presence of sun are therefore important. During repeated invertebrate surveys the order of site visits would usually be altered.

2.3 Evaluation

2.3.1 The species list has been run through the EEDSL 'Resources' Traits database (EEDSL, 2017), which allows the investigation of species in terms of the habitat resource components required by each species and the grouping of these. As this approach does not require the prior allocation of species to habitats it has greater resolution than systems based on 'habitats' alone. For instance, a solitary bee may forage at flowers in grassland, but nest in dead wood at the edge of woodland. Without either the source of wood (woodland/hedge/tree) or flowers (grassland) the bee cannot complete its life cycle. It therefore belongs to both the woodland and grassland systems and is scored for both.

2.3.2 There are two separate systems for assessing conservation significance. The first, older, RDB system (Red Data Book, Nationally Scarce etc) is based on a series of 'reviews' published in the 1990s and early 2000s. Here data from the 1970's onwards was used, with assessments based purely on the number of hectads a species had been recorded from at the time of the review. The second system is split into two parts, the first part (Red List) is based on the IUCN categories which are based on estimates of recent changes in population, the second part (National Rarity Score) on the number of hectads it has been recorded in the 30 years before the present day. Where both old and new systems have been used, both are provided, although, clearly, the more modern rating has precedence. More detail is given in Appendix 2 but a summary is provided below.

2.3.3 There were changes to the conservation status categories for invertebrates in 2017. The old RDB (Red Data Book) Conservation Status categories were based purely on the number of 10km squares which a species was known to have been recorded from, with a base-line date of 1970. These categories are susceptible to the progressive accumulation of new records over time for some species in particular, as non-specialist recording has increased significantly. There are also known changes in range and abundance which have been increasingly commented on by specialists.

2.3.4 The system graded species as set out below:

RDB 1. Endangered. Species currently (post 1970) known to exist in five or fewer ten-kilometre squares.

RDB 2. Vulnerable. Species in severely declining or vulnerable habitats, or of low known populations. Known to exist (post 1970) in ten, or fewer, ten-kilometre squares.

RDB 3. Rare. Species with small populations, not at present Endangered or Vulnerable, but which are felt to be at risk. Species currently known to exist (post 1970) in fifteen, or fewer, ten-kilometre squares.

RDB K. Species of undoubted RDB rank, but with insufficient information for accurate placement; includes possible recent arrivals.

Nationally Scarce. Species currently (post 1970) known to exist in one hundred, or fewer, ten-kilometre squares.

In some groups these are further sub-divided into:-

Nationally Scarce a. Species currently (post 1970) known to exist in thirty, or fewer, ten-kilometre squares.

Nationally Scarce b. Species currently known to exist in thirty-one to one hundred ten-kilometre squares.

2.3.5 The IUCN-type Red Data Book Conservation Status categories are based on perceived threat, of which distribution is only one part, the other being related to the population trend over the 10 years previous to the assessment, for the species in question. Such trends may be inferred from accumulated specialist knowledge but, as the quantity and quality of data improves increasing effort is being made to model such changes. The output of such modelling being then compared with the specialist knowledge. Species with a negative trend may not be inherently rare, it is the decline which is the significant factor.

2.3.6 The IUCN RDB Conservation Status categories are set out below:

Regionally Extinct (RE). Self-explanatory

Critically Endangered (CE). Species with a very severe decline in population trend or geographic range within the area considered.

Endangered (E). Species with a severe decline in population trend or geographic range within the area considered.

Vulnerable (V). Species with a marked decline in trend or geographic range within the area considered.

Near Threatened (NT). Species which are suspected to qualify for Vulnerable, but where the data does not quite support such a category.

Least Concern (LC). Species which show no marked negative population trend or geographic range. Indeed they may have positive values for either or both.

2.3.7 There are no specific criteria for the evaluation of invertebrate assemblages with the exception of dragonflies and butterflies. The Kent Criteria for the Selection of Local Wildlife Sites states for invertebrates:

“IN1 A site should be selected as a Local Wildlife Site where it is considered by an appropriately expert organisation or individual as being of importance for the maintenance of the conservation status of one or more invertebrate species within the County or with a particular National Character Area, and where this decision is ratified through the decision-making process for the identification of Local Wildlife Sites.”

2.3.8 The SSSI Criteria (JNCC) state that it is currently impracticable to define thresholds of minimum scoring points for SSSI selection.

Constraints

2.3.9 The weather conditions during all dates in 2018 were good for recording insects, being sunny and warm.

3.0 RESULTS

3.1 Desk Study

Darland Banks LNR

- 3.1.1 Darland Banks Local Nature Reserve is a 45ha area of chalk grassland, scrub and woodland on a steep south-west facing escarpment on the North Downs. Calcareous grassland is listed as a priority habitat under the UK's Biodiversity Action Plan. The Site is renowned for its chalk grassland plants: man orchid, lizard orchid, fragrant orchid, green-winged orchid, early-purple orchid, pyramidal orchid, field scabious and black knapweed have all been recorded here. Numerous species of butterfly and moth have been recorded at the LNR, some of which are rare and UK BAP Priority species: chalk hill and common blue, marbled white and green hairstreak butterfly, straw belle and fox moths are examples of the species recorded. The LNR also provides habitat for the great green bush-cricket.
- 3.1.2 The desk study records had 87 UK BAP invertebrate species records within 3km of the Site. A large portion of these records is from the Darland Banks LNR.

3.2 Sample Areas

Area 1

- 3.2.1 Area 1 is larger and more diverse than Area 2. It consists of fields 2 and 3 which both supported wheat in 2018 and there is a scrub bank between the two fields. The survey area was extended along the footpath at the edge of the Country Park as this was considered to be representative of the woodland strip.
- 3.2.2 The western boundary of field 2 has an extensive road verge alongside North Dane Way with calcareous vegetation and both planted and native scrub (area 1a on Figure 1). This was the most diverse area for invertebrates within Area 1. Whilst the road verge and north-western facing bank against the field are on chalk, the field is on a sandy-clay cap. The arable field was largely uninteresting for invertebrates with the exception of the two footpaths which cross the field which both supported nesting aggregations of the mining bee *Lasioglossum malachurum*.
- 3.2.2 Between fields 2 and 3 is a steep, easterly-facing bank (1b) which would have supported calcareous grassland in the past, but is now extensively colonised by 10 years old ash, *Fraxinus excelsior* to the south and there is an extensive blackthorn *Prunus spinosa* thicket to the north. A wide path through the blackthorn thicket is maintained. Although there was greater variety in the plants present in this area compared to the western edge of field 1 (1a), the diversity of invertebrate species was poorer.
- 3.2.3 Field 3 slopes down to the east from the steep bank of 1b. The soil is thin, similar to that to the west of field 2 alongside the North Dane Way (1a), however, it did not have the diversity of plants or invertebrates. The

ivy *Hedera helix* growing out from under the ash of the bank was the dominant ground cover and it was clear that frequent cultivation was also negatively affecting the margin against the bank. The south-facing edge of the field was backed by a narrow woodland, with a reasonably varied sub-shrub lower storey and the lowest margin was in deep shade with a complete ground cover of Ivy. This was the least productive area within Area 1.

- 3.2.4 An area known as 1c was also surveyed which in woodland west of field 3 and adjacent to the footpath. This area was adjacent to the red line area and within the Country Park, as it gave the best assessment of this woodland strip. Although not of the same diversity as the verge of North Dane Way, it nevertheless had a reasonable fauna, including, the large bird-dropping imitating weevil *Platyrhinus resinosus*, which feeds in King Alfred's Cake fungus *Daldinia concentrica* (a fungus that grows on ash) and the fairly recently established shield bug *Tritomegas sexmaculatus*, associated with black horehound *Ballota nigra*. The latter was also present in the adjacent field margin. The remains of stag beetle were recorded under a post by the footpath which skirts round the woodland and the adjacent grassland of the Country Park. It is thought likely that this had been predated upon by an owl species.

Area 2

- 3.2.5 Area 2 consists of field 1, Whites Wood and the western field boundary adjacent to North Dane Way. The bulk of the arable field held no interest for invertebrates. The eastern boundary, including the sides of Shawstead Road leading to the recycling centre as far as the entrance were also surveyed. These sides had a strong growth of both oil-seed rape, escaped from the field above, charlock *Sinapis arvensis* and white mustard *Sinapis alba*; all members of the Brassicaceae. To the south of the recycling centre the sides of the road are heavily overgrown with scrub.
- 3.2.6 Two interesting mining bee species were found visiting these Brassica flowers; *Andrena gravida*, a species widening its distribution in the extreme south-east of Britain and *Andrena niveata*, a specialist on the flowers of this family. This latter species is highly localised, but may be making a slow recovery as a result of the commercial planting of oil-seed rape. However, this also may well be through improved growing conditions for the non-agricultural *Sinapis* species, which are removed under cereal cropping by herbicides, unlike in oil-seed rape plantations.
- 3.2.7 The damp edges of the southern end of the arable field had dense stands of hemlock *Conium maculatum*. These flowers were being visited by another scarce mining bee, *Andrena proxima*, a specialist user of Apiaceae flowers. This stand was weed-killed between the May and June survey visits. However, this *Andrena* was also found in Area 1, visiting flowers of cow parsley *Anthriscus sylvestris*, so is more widely spread in the overall area.

3.2.8 The western field margin adjacent to the North Dane Way side and White Wood were uninteresting for invertebrates. White Wood is dominated by dense sycamore *Acer pseudoplatanus* with a limited shrub and field layer. This woodland has largely colonised the margins of North Dane Way.

3.2.9 To the south of Area 2 is an area of more open habitat (2a) which was included within the survey. This area was considered to be the best remaining example of open, relatively flower-rich habitat that would have been present along the North Dane Way adjacent to Area 2 before it became dominated by invading scrub. Compared to area 1a within Area 1, there was a much lower diversity of plants and the grassland is dominated by false oat-grass *Arrhenatherum elatius*, with a strip of planted trees, including a small-leaved elm species *Ulmus* sp. and seedling apples. However this area did produce a large percentage of the records for Area 2.

3.3 Survey Results

3.3.1 A total of 617 species were recorded overall, with 501 in Area 1 and 331 in Area 2. A total of 286 species (57%) were found in Area 1 only and 116 (35%) in Area 2. A total of 215 species were found in both sample areas (35%). Of these 617 species, a number of scarce species were recorded as set out below:

- 12 Red Data Book species,
- 11 Nationally Scarce species;
- Eight Nationally Scarce a species;
- 32 Nationally Scarce b species; and
- Two UK Biodiversity Action Plan Priority Species (UK BAP).

Table 1 - Number of conservation-rated species

	RDB1	RDB2	RDB3	NSa	NSb	CE	E	V	NT	NR	NS
Area 1	1	0	8	5	24	0	0	0	0	2	3
Area 2	0	1	6	5	14	0	0	0	0	0	3
Overall	1	1	10	8	32	0	0	0	0	2	4

Red Data Book (RDB) species

3.3.2 The RDB1 **squash bug** *Gonocerus acuteangulatus* was recorded in both areas. It was once restricted to a single site in Surrey but has now spread throughout the south-east occurring on hawthorn, rose, honeysuckle and buckthorn. It is now considered to be of Least Concern in the post 2017 Conservation status review.

3.3.3 One RDB2 species was recorded, and only in area 2 the **mining bee** *Andrena niveata* which is a rarely found bee, southern-restricted, ground nesting and oligolectic (specialised) on *Brassicaceae*.

3.3.4 A total of 10 RDB3 species were recorded including:

- Caspid bug *Lygus pratensis*
- Ground beetle *Scybalicus oblongiusculus*
- Long-horn beetle *Paracorymbia fulva*
- Weevil *Smicronyx reichii*
- Parasite fly *Gymnosoma rotundatum*
- Mining bee *Andrena florea*, *Andrena proxima*, *Sphecodes niger*
- Bee *Nomada lathburiana*, *Colletes hederæ*
- Ants *Myrmica specioides*
- Leaf cutter *Heriades truncorum*

3.3.5 The **capsid bug *Lygus pratensis*** was recorded in both survey area. Whilst being infrequently found many old records are unreliable due to taxonomic confusion in the past. It is found in a variety of habitats including woodland rides and grassland.

3.3.6 The **bee *Andrena florea*** is restricted to the south of England and is frequently found. It collects pollen only from white bryony and is most often associated with sandy soils and nests in hard ground such as on tracks. It was recorded in both areas.

Nationally scarce

3.3.6 A total of eight Nationally Scarce A and 32 Nationally Scarce B species have been recorded. Of these, 15 species have a new status of Least Concern.

UK BAP Species

3.3.7 In addition to the Nationally Scarce species two further species of conservation significance have been recorded. Two UK BAP species were recorded, the Looper moth *Scotopteryx chenopodiata* and cut-worm moth *Acrionicta rumicis*, both species were found in both areas.

4.0 EVALUATION

- 4.1 A total of 617 species were recorded overall in 2018, with 501 in Area 1 and 331 in Area 2. Within Area 1, the most diverse area for invertebrates was found along the western boundary adjacent to the North Dane Way which supports areas of calcareous vegetation along with planted and native scrub (Area a1). This area is under some threat from invading woodland and scrub. However, there were signs that the scrub is under a cyclical cutting regime and the immediately adjacent area was intensive arable so less likely to influence the plant succession.
- 4.2 Although not of the same diversity as the verge of North Dane Way, area 1c adjacent to the Country Park supported a reasonable fauna, including, the large bird-dropping imitating weevil *Platyrhinus resinosus*, which feeds in King Alfred's Cake fungus *Daldinia concentrica* and the fairly recently established shield bug *Tritomegas sexmaculatus*, associated with black horehound *Ballota nigra*. This latter species was also present in the adjacent field margin. The remains of stag beetle were found in this area having been predated upon.
- 4.3 During the visit of 5th April 2018 the western edge of field 2 held large nesting aggregations of several *Andrena* mining bees. The southern footpath across the field had a sizeable nesting aggregation of the mining bee *Lasioglossum malachurum* and similarly a vast number of the same species was recorded along the northern footpath through this field. Research has shown that this species does not overwinter in the same location as their spring/summer nest. The fact that the footpaths are ploughed out each year and then rapidly re-established by walkers keeps the habitat suitable for nesting by this species. Walking round the edges of field 2 and along the road verge showed that the major invertebrate interest was along the road verge itself and subsequent survey concentrated on this area, largely taking the footpaths as being representative of the rest of the field.
- 4.4 Area 2 is smaller than Area 1 and was found to be generally less diverse than Area 1. This was in part due to the scrubbing over of areas which would have supported a more open habitat if the scrub was subject to management. For example, Area 2a, species-rich flora and associated fauna was present which is associated with the area 1a to the north of Shawstead Road. This was indicated by the presence of plants such as man orchid *Orchis anthropophora* and white helleborine *Cephalanthera damasonium* which occurred occasionally within this area of more open ground. However, directly west of field 1, the invasive secondary woodland of White's Wood has taken over all but a very narrow strip along the visibility splay of the road.
- 4.5 Across the two sample Areas, 286 species (57%) were found in Area 1 only and 116 (35%) in Area 2 only. A total of 215 species were found in both sample areas (35%). Stag beetle was excluded as it was recorded

only as a predated specimen on one occasion. Out of this assemblage, the following were of conservation status:

- 12 Red Data Book species,
- 11 Nationally Scarce species;
- Eight Nationally Scarce a species;
- 32 Nationally Scarce b species; and
- Two UK Biodiversity Action Plan Priority Species (UK BAP).

4.6 These species may be considered in terms of their life-history resource components (or traits). Table 2 compares the numbers of species in the major resource groupings. These can provide insight into the overall habitat features present and help decide mitigation and landscaping for any development which takes place at the location. No aquatic sampling was necessary, so all are species with terrestrial adults.

Table 2 - Proportions of major resource categories by sample area

	Herbivore (% of total for area)	Predator (% of total for area)	Specialist (% of total for area)	Herbaceous vegetation (% of total for area)	Woody vegetation (% of total for area)
Area 1	277 (55%)	149 (29%)	198 (40%)	355 (71%)	174 (38%)
Area 2	173 (52%)	105 (32%)	127 (40%)	250 (76%)	105 (32%)
Overall	334 (54%)	189 (31%)	246 (40%)	429 (70%)	218 (35%)

4.7 It is noted that some species appear in both areas, therefore the totals will not be the same as the overall. The grassland component supports the most significant diversity of species and the scrub component, although not as significant as the grassland, is still of importance.

4.8 Within the grassland some plant families are associated with a larger proportion of the specialist species. Care in interpretation is needed here as some of this effect is purely due to the overall number of species within a plant family. It should be remembered that generalist species may well also use these plants. Clearly this analysis only works consistently for the herbivore community. However, the general statement that herbivore diversity drives predator diversity is true.

4.9 Almost all the plant families recorded here were represented by native species. Whilst these were, as far as can be seen, not deliberately sown, table 3 gives a good indication which plant families are likely to be of significant use in any mitigation procedure.

Table 3 - Plant families and number of species recorded using them

Plant family	Area 1	Area 2	Overall
Apiaceae	4	2	5
Aquifoliaceae	1	1	1
Araliaceae	5	3	6
Asteraceae	16	13	22
Betulaceae	4	0	4
Boraginaceae	1	0	1
Brassicaceae	9	9	12
Caryophyllaceae	1	1	1
Clusiaceae	2	0	2
Cornaceae	1	0	1
Cucurbitaceae	1	0	1
Dispacaceae	1	0	1
Fabaceae	33	15	34
Fagaceae	1	3	4
Geraniaceae	1	0	1
Oleaceae	1	2	3
Onagraceae	1	0	1
Plantaginaceae	4	2	4
Poaceae	27	30	37
Polygonaceae	3	3	4
Rhamnaceae	1	1	1
Rosaceae	19	7	20
Rubiaceae	5	1	5
Salicaceae	3	3	4
Scrophulariaceae	2	1	2
Ulmaceae	2	1	3
Urticaceae	13	8	14
Violaceae	1	0	1

Species of Conservation Status

- 4.10 Assessing the proportions of species with conservation statuses poses some difficulties as there are several systems running in parallel at present. These are explained in Appendix 2. The ratings under old and new systems (not all groups have any rating) are shown in Appendix 1. These two sets are not mutually exclusive, nor are they directly comparable. Summaries of the number of conservation-rated species are provided in table 1.
- 4.11 Amongst the old Conservation Status list are a number which will no longer be considered to qualify for a strong threat status, nor a distributional one. Chief amongst these are a number of bee, wasp and ant species. A review of the statuses of this group is pending. Appendix 2 gives an indication of the species within this group which are likely to retain some kind of conservation status.

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- 4.12 There is one Section 41 species, the Cinnabar Moth *Tyria jacobae*, which feeds on Ragwort *Senecio jacobae*. This moth is not threatened but is included in section 41 to highlight the importance to a wide range of invertebrates of some plant species often considered to be 'weeds'.

Summary

- 4.13 It must be noted that the distribution of the species of significance that have been recorded is limited to the field margins of Area 1 and 2 and areas of scrub area 1b with the significant sample areas within the Site amounting to approximately 2.7ha of a total Site area of 48ha or 5.6% of the total Site area.
- 4.14 Sample Area 2a is located 290m to the south of the Site along the eastern bank of North Dane Road. This area was chosen to provide a baseline as it was considered to be the best remaining example of open, relatively flower-rich habitat that would have been present along the North Dane Way adjacent to Area 2 before it became dominated by invading scrub. This area did produce a large percentage of the records for Area 2, showing the limited habitat available within the main Site due to its arable nature. It can also be used as an example for on-site mitigation, compensation and habitat restoration showing what improvements can be made to provide a significant habitat enhancements for terrestrial invertebrates.
- 4.15 The presence of 10 RDB3 and 32 Nationally Scarce species is of significance due to their rarity and the presence of these species in their own right is of **County Importance**.
- 4.16 This along with the presence of the two UK BAP Priority Species, the Looper moth *Scotopteryx chenopodiata* and cut-worm moth *Acronicta rumicis* and the incidental record of stag beetle, the overall assemblage of species within the Site to be considered of **County Importance**.

5.0 CONCLUSIONS

5.1 Invertebrate surveys have been carried out across the Site in 2018. A total of 617 species were recorded, with 501 in Area 1 and 331 in Area 2 including off-site area 2a. Of these, 286 species (57%) were only found in Area 1 and 116 (35%) were only found in Area 2. A total of 215 species were found in both sample areas (35%).

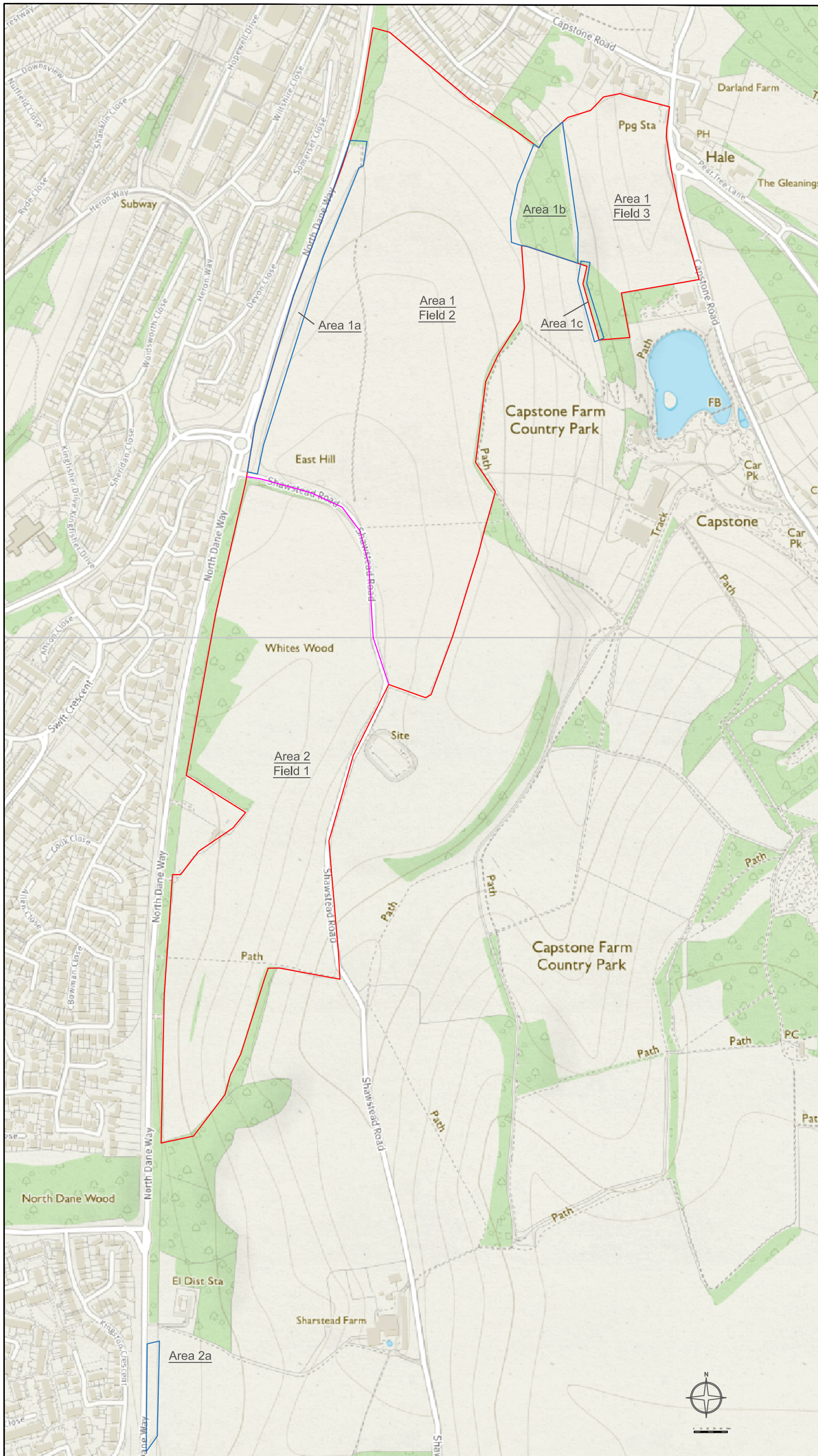
5.2 The assemblage included the following of conversation status:

- 12 Red Data Book species,
- 11 Nationally Scarce species;
- Eight Nationally Scarce a species;
- 32 Nationally Scarce b species; and
- Two UK Biodiversity Action Plan Priority Species (UK BAP) with the remains of a third species (stag beetle) also recorded.

5.3 The aim of the survey was not to produce an exhaustive list of all species within the Site, rather to provide an assessment of the assemblage of the Site for terrestrial invertebrates. The presence of these rare species is of significance due to their rarity and the presence of these species in their own right is of **County Importance**, with the overall assemblage of species present also considered to be of **County Importance**.

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REFERENCES

EEDSL, Edwards Ecological and Data Services Ltd. 2017. *EEDSL Traits Database*. Unpublished.



Key

- Site Survey Area
- Survey Area Compartment Line
- Significant Sample Area

Ordnance Survey
Licence Number
100050443

revision	description	date	checked by

Corylus Ecology Ltd, Unit A3, Speldhurst Business Park, Went Farm, Langton Road, Speldhurst, Kent TN3 0NR
Corylus Ecology is the trading name of Corylus Ecology Ltd registered in England, No 5005533. Registered Office: Herwood House, Herwood, Ashford, Kent TN24 8DH



Project:
17032 East Hill, Hempstead

Title:
Terrestrial Invertebrate Survey Plan

Status: drawing no. **Figure 1**

scale	size	date	drawn	checked
NTS	A3	19.03.2019	AW	HL

CAD filename: Figure_1.dwg

Appendix 2

Conservation Status Categories, Distribution and Abundance Terms for Insects

Conservation Status categories

GB Conservation Status categories are in the process of being upgraded. This means that it is currently necessary to provide values for both systems as not all groups have been dealt with.

The old RDB (Red Data Book) Conservation Status categories were based purely on the number of 10km squares which a species was known to have been recorded from, with a base-line date of 1970. These categories are obviously susceptible to the progressive accumulation of new records over time. This is especially so as, for some species in particular, non-specialist recording has increased significantly. There are also known changes in range and abundance which have been increasingly commented on by specialists.

The old system graded species like this:

RDB 1. Endangered. Species currently (post 1970) known to exist in five or fewer ten-kilometre squares.

RDB 2. Vulnerable. Species in severely declining or vulnerable habitats, or of low known populations. Known to exist (post 1970) in ten, or fewer, ten-kilometre squares.

RDB 3. Rare. Species with small populations, not at present Endangered or Vulnerable, but which are felt to be at risk. Species currently known to exist (post 1970) in fifteen, or fewer, ten-kilometre squares.

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Nationally Scarce b. Species currently (post 1970) known to exist in thirty-one to one hundred ten-kilometre squares.

The new IUCN-type Red Data Book Conservation Status categories are based on perceived threat, of which distribution is only one part, the other being related to the population trend over the 10 years previous to the assessment, for the species in question. Such trends may be inferred from accumulated specialist knowledge, but, as the quantity and quality of data improves increasing effort is being made to model such changes. The output of such modelling being then compared with the specialist knowledge. Species with a negative trend may not be inherently rare, it is the decline which is the significant factor.

The new system grades species like this (This is very much a summary, there is considerable detail to this, please consult the group-appropriate published Great Britain Red List for a better understanding of how the gradings have been arrived at):

Regionally Extinct (RE). See group-appropriate Red List for criteria. In general, a sufficiently long time has elapsed since the last record of this species.

Critically Endangered (CE). Species with a very severe decline in population trend or geographic range within the area considered.

Endangered (E). Species with a severe decline in population trend or geographic range within the area considered.

Vulnerable (V). Species with a marked decline in trend or geographic range within the area considered.

Near Threatened (NT). Species which are suspected to qualify for Vulnerable, but where the data does not quite support such a category.

Least Concern (LC). Species which show no marked negative population trend or geographic range. Indeed they may have positive values for either or both.

There will be a number of species where it has been considered that there is insufficient information to provide a

supported grading, such species are called **Data Deficient (DD)**. There are also categories for invasive (with anthropogenic agency) species, which are usually assessed as **Not Applicable (NA)**.

The IUCN Red List system was primarily developed for assessing large mammal populations and fish stocks, adapting it for invertebrates is, inevitably, an experimental process and it is to be expected that there will be variability in its application and interpretation between groups. However, each published GB Red List has information on the actual way in which decisions have been arrived at. These should be consulted where necessary.

There is no inherent equivalence between the old and new systems

Great Britain has a considerable environmental gradient from north to south and, to a lesser extent, east to west. Species which are stable in their trend or geographic extent may still be considerably limited by the availability of suitable habitat resources. In order that such species do not get missed from conservation considerations a second, parallel, system of **GB scarcity** has been developed. This is similar to the old Conservation Status system in that it is based on the number of 10km squares which the species is known from, in a given time period, usually 30 years previous to the date of the assessment.

Categories for this **National Scarcity** rating are :

NR, with 1-15 10Km occupied squares

NS, with 16 to 100 10Km occupied squares.

Clearly both systems will require periodic revision if they are to remain relevant to the needs of a modern country and the conservation of its fauna.

Distribution categories

Distribution refers solely to the geographical extent of a species in the British Isles. Considerable confusion has been caused in the past by the varying meanings given to many assessments of species where geographic distribution has been confused with local abundance.

A distribution classification, based on the known distribution range, is used here. Where possible a provisional national distribution range status under this system is given, based on published distribution maps, updated where necessary by specialist information. The basic system has been to divide the British Isles into thirds, largely ignoring the influence of altitude. The lines delineating these thirds run approximately:

- i). Along a line from the Wash to the Severn and including South Wales.
- ii) Along a line running through the Scottish Borders.

Universal. Distributed throughout England and Wales, with at least some extension into central and northern Scotland.

Widespread. Distributed in about three-quarters of England and Wales, perhaps with a few records in southern Scotland, but not significantly found in the northern third (Southern Widespread) or southern third (Northern Widespread) of the British Isles. (NB Northern Widespread species are found in Scotland as well.)

Restricted. Distributed in the southern (Southern Restricted) or northern (Northern Restricted) third of the British Isles only.

Abundance Comments (in Notes)

These often form the first part of the 'Notes' in the species information. An attempt has been made to make something akin to the well-established DAFOR system for botanical abundance recording, but with just four categories. These rate the expectation of finding the species, if all its life-cycle resource requirements and temperature and humidity regimes are apparently met on a site.

- i) Commonly found. An experienced observer would expect to find the species 90% or more of the time where all

its requirements are met.

ii) Frequently found. An experienced observer would expect to find the species 60% or more of the time where all its requirements are met.

iii) Infrequently found. An experienced observer would expect to find the species 10% or more of the time where all its requirements are met.

iv) Rarely found. An experienced observer would expect to find the species less than 10% of the time where all its requirements are met.

These may be modified by a comment as to the degree of restriction to localities, even within its known range and when its requirements are met, often something like Locally frequently found.

Abundance comments are much more subjective than distribution comments, being dependent upon the precise timing of survey visits and the timing of emergence of the insect species, as well as the experience of the observer. The method of recording, e.g. by sight or hand-netting, sweeping, beating, malaise trap, pan trap, may also affect the observed abundance. It is assumed that recording takes place under favourable conditions of habitat, weather and season. Often a species appears to be rarely found, until the particular way of looking for it is discovered, when it proves to be much more prevalent than previously thought.

Some species, however, seem to exist in low numbers at all times in all suitable places. This may reflect the species' position in its particular ecological pyramid. The abundance may have no connection with the conservation status; some species are numerous in their particular locations: others may only ever be found as singletons. Comments under this heading rely heavily upon the observer's accumulated experience as the rating given is a measure of the expectation of finding the species in a suitable habitat. Species living towards the edge of their range are often less frequent than they are in the middle of their range.

Specialist Terms for Ants, Bees and Wasps

Cleptoparasitic: A species taking over the stored provisions of another species to feed its young. This usually involves the cleptoparasite laying an egg in the nest of the host, but may involve oviposition on prey being transported by the host.

Socially Parasitic: The queens of some social aculeates do not initiate their own nests from scratch, but take over established nests of other species. Sometimes this results in the gradual replacement of the workers of one species by another. In other cases the parasite does not produce its own workers and the nest just produces males and females of the invading parasite before it dies out. In some ant species the chain of socially parasitic species may have several links.

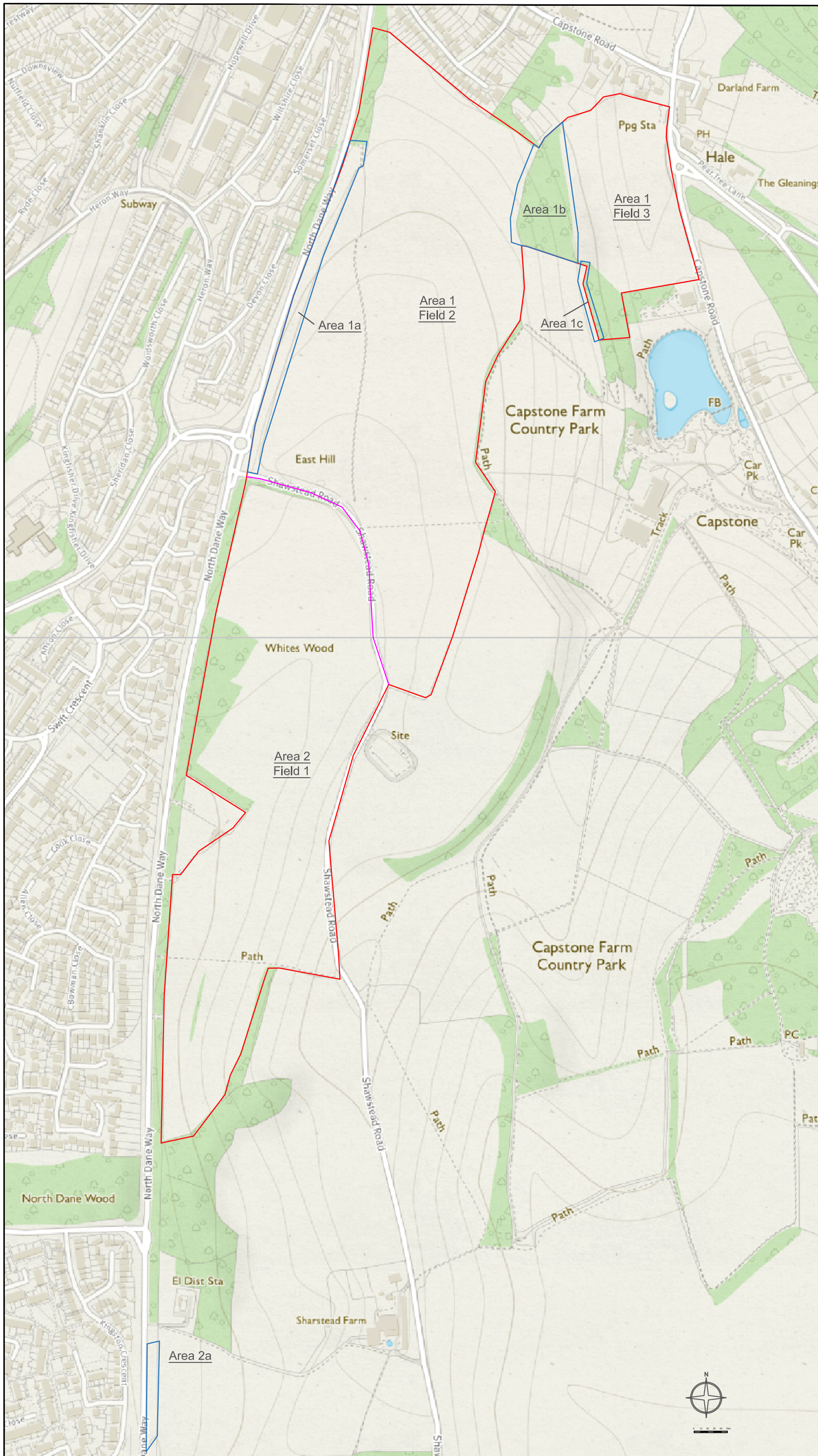
Nesting situations: Bees and wasps may construct their nesting chambers in the ground (ground nesting) or in aerial situations (aerial nesting). Such aerial nests may be constructed in dead wood (dead-wood nesting), dead bramble stems or similar pith-filled stems (stem nesting) or in a variety of cavities (cavity nesting).

Nest provisioning terms: These relate (in bees) to the preferred sources of pollen for provisioning the nest. Such resources may be very specific for some species. Nectar sources are not so clearly defined, although bees with longer tongues can forage at flowers with longer nectaries. Such flowers often have more concentrated nectar. The structure of the anthers and stigma is often related to the length of the tongue of the preferred pollinating insect.

Oligolectic: Bees which confine their pollen gathering activities to one species of plant, or a closely-related group of plants.

Polylectic: Bees which forage for pollen at a variety of different plants and show no particular preference.

Social organisation: The majority of bee and wasp species are solitary. One female provisions the nest and lays her eggs on the provisions. A number of solitary nesting insects may use the same small area when they are said to nest colonially. Eusocial species have a founding female who lays all the eggs, but the first insects to hatch (females) stay and help run the nest. At the end of the season males and females are produced. These mate and the newly mated females start their own nests. Usually only mated females overwinter. Some ant colonies have several mated females (queens).



Key

- Site Survey Area
- Survey Area Compartment Line
- Significant Sample Area

Ordnance Survey
Licence Number
100050443

revision	description	date	checked by

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Project:
17032 East Hill, Hempstead

Title:
Terrestrial Invertebrate Survey Plan

Status: drawing no. **Figure 1**

scale	size	date	drawn	checked
NTS	A3	19.03.2019	AW	HL

CAD filename: Figure_1.dwg

Appendix 1 - Full Survey Results

Order	Family	SpeciesName	Hempstead Area 1	Hempstead Area 2	Old ConservationStatus	Post 2017 Conservation status	UK Scarcity	Distribution	Abundance	FlatResources::54	FlatResources::OldConservationStatu	FlatResources::RDBPost2017FlatResources::UKScarcityPotential	UK Red List speciesPotential	UK scarcity species
						RDB				1	5			
000 MOLLUSCA (Slugs and Snails)	Helicidae	Cepaea nemoralis	1	2		Least Concern		Universal	Very commonly found. In wide range of habitats.					Least Concern
000 MOLLUSCA (Slugs and Snails)	Helicidae	Cornu aspersum	1	2		Least Concern		Universal	Commonly found. Increasingly lowland and coastal towards the north. Found in woodland in the south but mainly synanthropic. Prefers base rich soils.					Least Concern
000 MOLLUSCA (Slugs and Snails)	Helicidae	Monacha cantiana	1	2		Least Concern		Universal	Commonly found, but with strong south-eastern bias. In a variety of habitats.					Least Concern
000 MOLLUSCA (Slugs and Snails)	Hygromidae	Trochulus hispidus	1	2		Least Concern		Universal	Frequently found. Found in ground layer and low vegetation in various humid but not densely shaded habitats and not usually in gardens. Shows a preference for base rich soils.					Least Concern
000 MOLLUSCA (Slugs and Snails)	Hygromidae	Trochulus striolatus	1	2		Least Concern		Universal	Frequently found. Found in ground layer and field layer. Occurs in semi-natural habitats in south but increasingly synanthropic towards north.					Least Concern
000 MOLLUSCA (Slugs and Snails)	Hygromiidae	Candidula intersepta	1	2		Least Concern		Universal	Frequently found. Typical habitat is dry, calcareous grassland but also occurs on base-rich sandy soils and synanthropic sites. Usually found in ground layer or field layer but occasionally climbs trees.					Least Concern
000 MOLLUSCA (Slugs and Snails)	Hygromiidae	Ceriuella virgata	1	2		Least Concern		Universal	Frequently found. Typical habitat is dry, calcareous grassland but also occurs on base-rich sandy soils and synanthropic sites. Usually found in ground layer or field layer but occasionally climbs trees.					Least Concern
000 MOLLUSCA (Slugs and Snails)	Lauriidae	Lauria cylindracea	1	2		Least Concern		Universal	Commonly found. Found in most habitats except wetlands in western Britain but increasingly restricted to walls in east.					Least Concern
000 MOLLUSCA (Slugs and Snails)	Limacidae	Deroceras reticulatum	1	2		Least Concern		Universal	Very commonly found. In a variety of open habitats.					Least Concern
000 MOLLUSCA (Slugs and Snails)	Valoniidae	Valonia costata	1	2		Least Concern		Universal	Frequently found. Found in open, dry habitats on base rich soils including sand dunes and calcareous grassland.					Least Concern
001 ISOPODA (Woodlice)	Armadillidiidae	Armadillidium vulgare	1	2		Least Concern		Universal	Pill woodlice. Commonly found, although scarcer in the north.					Least Concern
001 ISOPODA (Woodlice)	Oniscidae	Oniscus asellus	1	2		Least Concern		Universal	Very commonly found in rotting vegetation.					Least Concern
001 ISOPODA (Woodlice)	Philosciidae	Philoscia muscorum	1	2		Least Concern		Universal	Commonly found. Often at the base of hedgerows and in woodland.					Least Concern
001 ISOPODA (Woodlice)	Platyarthridae	Platyarthrus hoffmannseggii	1	2		Least Concern		Southern Widespread	Commonly found. Almost always found in the nests of ants, especially Lasius flavus and L. niger. Has been found with a wide range of other ant species and in southern England appears to be frequent where ever ants occur. Increasingly restricted to warm, calcareous sites on the coast further north.					Least Concern
001 ISOPODA (Woodlice)	Porcellionidae	Porcellio scaber	1	2		Least Concern		Universal	Very commonly found. In a wide range of habitats.					Least Concern
005 DIPLOPODA (Millipedes)	Julidae	Cylindroiulus caeruleocinctus	1	2		Least Concern		Universal	Commonly found.					Least Concern
005 DIPLOPODA (Millipedes)	Julidae	Tachypodoiulus niger	1	2		Least Concern		Universal	Very commonly found. In a variety of habitats.					Least Concern
007 COLLEMBOLA (Springtails)	Entomobryidae	Orchesella cincta	0	1				Universal	Commonly found. Associated with the lower layers of vegetation litter.					
007 COLLEMBOLA (Springtails)	Entomobryidae	Orchesella villosa	1	2				Universal	Commonly found. Associated with the lower layers of vegetation litter.					
007 COLLEMBOLA (Springtails)	Entomobryidae	Pogonognathellus longicornis	1	2				Universal	Commonly found. Associated with the lower layers of vegetation litter.					
009 Prostigmata (Mites)	Eriophyidae	Aceria campestricola	1	2				Southern Widespread	Elm leaf gall mite. Frequently found. Galls leaves of Elm.					
010 ARANEAE (Spiders)	Agelenidae	Agelena labyrinthica	1	2		Least Concern		Southern Widespread	Commonly found. Amongst rough grassland and heathland. It spins its funnel web near ground level amongst tall vegetation, heather and occasionally in gorse preying on mainly grasshoppers.					Least Concern
010 ARANEAE (Spiders)	Anyphaenidae	Anyphaena accentuata	1	2		Least Concern		Southern Widespread	Commonly found on the lower branches of trees in woodland.					Least Concern
010 ARANEAE (Spiders)	Araneidae	Agalenatea redii	1	2		Least Concern		Southern Widespread	Local but commonly found in southern Britain amongst tall vegetation on rough grassland and heathland.					Least Concern
010 ARANEAE (Spiders)	Araneidae	Araneus diadematus	1	2		Least Concern		Universal	Commonly found. Amongst tall vegetation and scrub in a variety of habitats.					Least Concern
010 ARANEAE (Spiders)	Araneidae	Araniella cucurbitina	1	2		Least Concern		Universal	Commonly found. On tall vegetation, scrub and the lower branches of trees.					Least Concern
010 ARANEAE (Spiders)	Araneidae	Araniella opisthographa	1	2		Least Concern		Southern Widespread	Commonly found. On tall vegetation, scrub and the lower branches of trees.					Least Concern
010 ARANEAE (Spiders)	Araneidae	Hyssosinga pygmaea	0	1		Least Concern		Southern Widespread	Infrequently found and local amongst tall vegetation on rough grassland and heathland, usually in damp areas.					Least Concern
010 ARANEAE (Spiders)	Araneidae	Larinioides cornutus	1	2		Least Concern		Universal	Commonly found. Widespread on water side vegetation.					Least Concern
010 ARANEAE (Spiders)	Araneidae	Mangora acalypha	1	2		Least Concern		Southern Restricted	Locally commonly found. Not restricted to heathland but is most common in this habitat.					Least Concern
010 ARANEAE (Spiders)	Araneidae	Neoscona adianta	0	1		Least Concern		Southern Restricted	Infrequently found and largely coastal. The spider spins an orb web amongst tall vegetation on grasslands, heathland, wetlands and saltmarsh.					Least Concern
010 ARANEAE (Spiders)	Araneidae	Nuctenea umbratica	1	2		Least Concern		Universal	Commonly found. Under the bark of trees and on fence posts.					Least Concern
010 ARANEAE (Spiders)	Araneidae	Zilla diodia	1	2	Nationally Scarce b	Least Concern		Southern Restricted	Locally frequently found. On heather, tall vegetation and patches of scrub on heathland, open woodland and hedgerows.		Nationally Scarce b			Least Concern
010 ARANEAE (Spiders)	Araneidae	Zygella atrica	1	2		Least Concern		Universal	Commonly found. On scrub in a variety of habitats.					Least Concern
010 ARANEAE (Spiders)	Araneidae	Zygella x-notata	1	2		Least Concern		Universal	Commonly found. Associated with bare mineral surfaces, including buildings.					Least Concern
010 ARANEAE (Spiders)	Clubionidae	Clubiona comta	0	1		Least Concern		Universal	Commonly found on scrub and the branches of trees.					Least Concern
010 ARANEAE (Spiders)	Dictynidae	Dictyna arundinacea	1	2		Least Concern		Universal	Commonly found. Widespread in Britain in a variety of habitats. Requires tall dead vegetation and low scrub such as heather and gorse.					Least Concern
010 ARANEAE (Spiders)	Dictynidae	Dictyna uncinata	1	2		Least Concern		Southern Widespread	Commonly found. Occurs in the same situations as D. arundinacea.					Least Concern
010 ARANEAE (Spiders)	Dysderidae	Dysdera crocata	1	2		Least Concern		Universal	Commonly found. Under stones and logs in a variety of habitats.					Least Concern
010 ARANEAE (Spiders)	Linyphiidae (Money Spiders)	Cnephalocotes obscurus	0	1		Least Concern		Universal	Frequently found. Under moss and leaf litter in a variety of habitats.					Least Concern
010 ARANEAE (Spiders)	Linyphiidae (Money Spiders)	Erigone atra	1	2		Least Concern		Universal	Commonly found. Widespread in Britain. It is found at ground level and on short vegetation in a wide range of habitats.					Least Concern
010 ARANEAE (Spiders)	Linyphiidae (Money Spiders)	Erigone dentipalpis	1	2		Least Concern		Universal	Commonly found. At ground level and on short vegetation in a wide range of habitats.					Least Concern
010 ARANEAE (Spiders)	Linyphiidae (Money Spiders)	Linyphia triangularis	1	2		Least Concern		Universal	Commonly found to abundant, on tall vegetation and low scrub.					Least Concern
010 ARANEAE (Spiders)	Linyphiidae (Money Spiders)	Microlinyphia pusilla	0	1		Least Concern		Widespread	Commonly found. In a wide range of habitats.					Least Concern
010 ARANEAE (Spiders)	Linyphiidae (Money Spiders)	Tapinopa longidens	1	2		Least Concern		Universal	Frequently found. In a variety of habitats.					Least Concern
010 ARANEAE (Spiders)	Linyphiidae (Money Spiders)	Troxochrus scabriculus	1	2		Least Concern		Universal	Frequently found. Dry places.					Least Concern
010 ARANEAE (Spiders)	Lycosidae (Wolf Spiders)	Alopecosa pulverulenta	1	2		Least Concern		Universal	Commonly found. At ground level in short vegetation in grasslands and heathlands.					Least Concern
010 ARANEAE (Spiders)	Lycosidae (Wolf Spiders)	Pardosa prativaga	0	1		Least Concern		Southern Widespread	Commonly found. Widespread in southern Britain in a wide range of habitats.					Least Concern
010 ARANEAE (Spiders)	Lycosidae (Wolf Spiders)	Trochosa terricola	1	2		Least Concern		Universal	Commonly found. At ground level in a wide range of habitats.					Least Concern
010 ARANEAE (Spiders)	Mimetidae	Ero cambridgei	0	1		Least Concern		Southern Widespread	Commonly found. In a variety of habitats in tall vegetation and scrub.					Least Concern
010 ARANEAE (Spiders)	Philodromidae	Philodromus albidus	1	2	Nationally Scarce b	Least Concern		Southern Widespread	Locally frequently found. Usually found on the lower branches of oak on woodland edge and in hedgerows.		Nationally Scarce b			Least Concern
010 ARANEAE (Spiders)	Philodromidae	Philodromus aureolus	0	1		Least Concern		Southern Widespread	Commonly found. On scrub, heather and the lower branches of trees in woodland and other scrubby habitats.					Least Concern
010 ARANEAE (Spiders)	Philodromidae	Philodromus cespitum	0	1		Least Concern		Southern Widespread	Commonly found. On scrub, heather and the lower branches of trees in woodland and other scrubby habitats.					Least Concern
010 ARANEAE (Spiders)	Philodromidae	Philodromus dispar	1	2		Least Concern		Universal	Commonly found. On scrub, heather and the lower branches of trees in woodland and other scrubby habitats.					Least Concern
010 ARANEAE (Spiders)	Philodromidae	Tibellus oblongus	1	2		Least Concern		Southern Widespread	Commonly found in habitats with tall grassy vegetation.					Least Concern
010 ARANEAE (Spiders)	Pisauridae	Pisaura mirabilis	1	2		Least Concern		Southern Widespread	Commonly found. Found in habitats with tall grassy vegetation.					Least Concern
010 ARANEAE (Spiders)	Salticidae (Jumping Spiders)	Ballus chalybeius	1	2		Least Concern	NS	Southern Restricted	Infrequently found and local. It is usually found on the lower branches of trees and scrub in woodland.					Least Concern
010 ARANEAE (Spiders)	Salticidae (Jumping Spiders)	Euophrys frontalis	1	2		Least Concern		Southern Widespread	Commonly found, in a wide variety of habitats at ground level.					Least Concern
010 ARANEAE (Spiders)	Salticidae (Jumping Spiders)	Heliophanus cupreus	1	2		Least Concern		Southern Restricted	Frequently found, but local. On vegetation and at ground level in a wide range of habitats.					Least Concern
010 ARANEAE (Spiders)	Salticidae (Jumping Spiders)	Heliophanus flavipes	0	1		Least Concern		Southern Widespread	Frequently found, but local. Found on vegetation and at ground level in a wide range of habitats.					Least Concern
010 ARANEAE (Spiders)	Salticidae (Jumping Spiders)	Neon reticulatus	1	2		Least Concern		Southern Widespread	Infrequently found, but local. Essentially a woodland species found in leaf litter, but it does occur at ground level in litter in other habitats. This jumping spider has only been found rarely in Sussex, most recently here at Ashdown Forest in Molinia litter and in bracken litter at Hastings Country Park.					Least Concern
010 ARANEAE (Spiders)	Salticidae (Jumping Spiders)	Sibianor aurocinctus	0	1	Nationally Scarce a	Least Concern	NS	Southern Restricted	Infrequently found and local. Most records coming from the Thames basin. Does not seem to be associated with any particular habitat but does require warm, dry sparsely vegetated areas.		Nationally Scarce a			Least Concern
010 ARANEAE (Spiders)	Salticidae (Jumping Spiders)	Talavera aequipes	1	2		Least Concern		Southern Widespread	Frequently found but local. In warm, open sunny habitats such as cliffs, waste ground and stony banks.					Least Concern
010 ARANEAE (Spiders)	Tetragnathidae	Metellina mengeli	1	2		Least Concern		Universal	Commonly found. Widespread in almost all habitats.					Least Concern
010 ARANEAE (Spiders)	Tetragnathidae	Metellina segmentata	1	2		Least Concern		Universal	Commonly found in almost all habitats.					Least Concern
010 ARANEAE (Spiders)	Tetragnathidae	Pachygnatha degeeri	1	2		Least Concern		Universal	Commonly found. Widespread in a wide range of habitats at ground level or in short vegetation.					Least Concern
010 ARANEAE (Spiders)	Theridiidae	Phylloneta sisyphia	1	2		Least Concern		Universal	Common in Wales and southern England, increasingly scattered and infrequent in northern England and Scotland. Found in wide range of mainly open habitats where webs may be constructed in the field layer, on shrubs and in the canopy.					Least Concern
010 ARANEAE (Spiders)	Theridiidae (Comb-foot Spiders)	Anelosimus vittatus	1	2		Least Concern		Southern Widespread	Commonly found. Widespread in southern Britain, rare in the north. Found on the lower branches of trees and on scrub.					Least Concern

010 ARANEAE (Spiders)	Theridiidae (Comb-foot Spiders)	Enoplognatha latimana	1	2	Least Concern		Southern Widespread	Commonly found. Amongst tall vegetation in open sunny habitats. Care with ID.	Least Concern
010 ARANEAE (Spiders)	Theridiidae (Comb-foot Spiders)	Enoplognatha ovata	1	2	Least Concern		Universal	Commonly found. Widespread in a wide range of habitats. Care with ID.	Least Concern
010 ARANEAE (Spiders)	Theridiidae (Comb-foot Spiders)	Neottiura bimaculata	1	2	Least Concern		Southern Widespread	Commonly found. Found in a wide range of habitats amongst tall vegetation and scrub.	Least Concern
010 ARANEAE (Spiders)	Theridiidae (Comb-foot Spiders)	Paidiscura pallens	0	1	Least Concern		Southern Widespread	Commonly found. Widespread on tall vegetation, scrub and the lower branches of trees.	Least Concern
010 ARANEAE (Spiders)	Thomisidae	Diaea dorsata	1	2	Least Concern		Southern Widespread	Infrequently found. It seems to be associated with evergreens and conifers on the edge of woodland. It was found on gorse during the survey.	Least Concern
010 ARANEAE (Spiders)	Thomisidae	Misumena vatia	1	2	Least Concern		Southern Widespread	Locally commonly found. Mainly found in tall vegetation and scrub in the scrub/grassland interface.	Least Concern
010 ARANEAE (Spiders)	Thomisidae	Ozyptila atomaria	1	2	Least Concern		Universal	Commonly found amongst short vegetation and at ground level on heathland and grasslands.	Least Concern
010 ARANEAE (Spiders)	Thomisidae	Ozyptila simplex	1	2	Least Concern		Southern Restricted	Locally frequently found. Most records are from coastal habitats, especially dunes and grassland, but also known from inland grassland.	Least Concern
010 ARANEAE (Spiders)	Thomisidae	Xysticus cristatus	1	2	Least Concern		Universal	Commonly found. Widespread throughout Britain in sunny situations in a wide range of habitats.	Least Concern
010 ARANEAE (Spiders)	Zoridae	Zora spinimana	1	2	Least Concern		Southern Widespread	Commonly found. In open habitats at ground level and in plant debris.	Least Concern
020 OPILIONES (Harvestmen)	Phalangidae	Mitopus morio	1	2			Universal	Commonly found. In a variety of habitats	
020 OPILIONES (Harvestmen)	Phalangidae	Paroligolophus agrestis	1	2			Universal	Commonly found. On tall vegetation, scrub and heather.	
020 OPILIONES (Harvestmen)	Phalangidae	Phalangium opilio	0	1			Universal	Commonly found. Tall vegetation, heather	
040 ODONATA (Damselfly and Dragonflies)	Aeshnidae (Hawker Dragonflies)	Aeshna mixta	1	2			Southern Widespread	Frequently found. Associated with well-vegetated, still water bodies.	
040 ODONATA (Damselfly and Dragonflies)	Aeshnidae (Hawker Dragonflies)	Anax imperator	1	2	Least Concern		Southern Restricted	Emperor Dragonfly. Frequently found. A species of open ponds with submerged vegetation.	Least Concern
040 ODONATA (Damselfly and Dragonflies)	Libellulidae (Darter Dragonflies)	Sympetrum striolatum	0	1	Least Concern		Universal	Common Darter Dragonfly. Abundantly found. Associated with a range of still and slowly-flowing water bodies.	Least Concern
060 ORTHOPTERA (Crickets and Grasshoppers)	Acrididae (Grasshoppers)	Chorthippus brunneus	1	2	Least Concern		Universal	Field Grasshopper. Commonly found. A ready coloniser of disturbed areas with a sparse vegetation.	Least Concern
060 ORTHOPTERA (Crickets and Grasshoppers)	Acrididae (Grasshoppers)	Chorthippus parallelus	1	2	Least Concern		Universal	Meadow Grasshopper. Commonly found in a variety of grassy habitats.	Least Concern
060 ORTHOPTERA (Crickets and Grasshoppers)	Tettigoniidae (Bush Crickets)	Leptophyes punctatissima	1	2	Least Concern		Southern Widespread	Speckled Bush-cricket. Commonly found. Strongly biased towards southern England and Wales. Scrub.	Least Concern
060 ORTHOPTERA (Crickets and Grasshoppers)	Tettigoniidae (Bush Crickets)	Meconema meridionale	1	2	Not Applicable		Southern Restricted	Short-winged Oak Bush-cricket. Infrequently found. New to Britain in 2001. Spreading throughout south-east Britain.	Not Applicable
060 ORTHOPTERA (Crickets and Grasshoppers)	Tettigoniidae (Bush Crickets)	Meconema thalassinum	1	2	Least Concern		Southern Widespread	Oak Bush-cricket. Commonly found. Wooded localities in the southern British Isles.	Least Concern
060 ORTHOPTERA (Crickets and Grasshoppers)	Tettigoniidae (Bush Crickets)	Metrioptera roeselli	1	2	Nationally Scarce b		Southern Restricted	Roesel's Bush Cricket. Commonly found in long grasslands and spreading rapidly in southern Britain.	Nationally Scarce b
060 ORTHOPTERA (Crickets and Grasshoppers)	Tettigoniidae (Bush Crickets)	Pholidoptera griseoptera	1	2	Least Concern		Southern Widespread	Dark Bush-cricket. Commonly found. A species of scrub.	Least Concern
070 DERMAPTERA (Earwigs)	Forficulidae (Earwigs)	Apterygida media	1	2	Nationally Scarce b		South-eastern Restricted	Infrequently found. Associated with warm areas of scrub and grassland in the extreme south-east of England.	Nationally Scarce b
070 DERMAPTERA (Earwigs)	Forficulidae (Earwigs)	Forficula auricularia	1	2	Least Concern	NR	Universal	Common Earwig. Very commonly found.	Least Concern
070 DERMAPTERA (Earwigs)	Forficulidae (Earwigs)	Forficula lesnei	1	2	Nationally Scarce b		Southern Restricted	Adults occur in rank vegetation and hedgerows. A local species with recent records confined to south-east England.	Nationally Scarce b
090 MECOPTERA, MEGALOPTERA, NEUROPTERA (Lacewings and allies)	Chrysopidae (Green Lacewings)	Chrysopa perla	0	1			Universal	Commonly found. The larvae feed on aphids on deciduous trees.	
090 MECOPTERA, MEGALOPTERA, NEUROPTERA (Lacewings and allies)	Chrysopidae (Green Lacewings)	Chrysoperla carnea agg.	1	2			N/A	Commonly found. A green lacewing which turns pink during the winter when it hibernates. Recent work has shown that carnea contains several species separable only with great difficulty.	
090 MECOPTERA, MEGALOPTERA, NEUROPTERA (Lacewings and allies)	Hemerobiidae (Brown Lacewings)	Micromus variegatus	1	2			Universal	Commonly found. The larvae feed on aphids on tall grasses and forbs	
090 MECOPTERA, MEGALOPTERA, NEUROPTERA (Lacewings and allies)	Panorpidae (Scorpionflies)	Panorpa communis	1	2			Universal	Commonly found. It occurs in scrubby and woodland areas.	
090 MECOPTERA, MEGALOPTERA, NEUROPTERA (Lacewings and allies)	Panorpidae (Scorpionflies)	Panorpa germanica	1	2			Universal	Commonly found. It occurs in scrubby and woodland areas.	
120 HEMIPTERA-HETEROPTERA	Acanthosomatidae (Shieldbugs)	Acanthosoma haemorrhoidale	1	2	Least Concern		Southern Widespread	Commonly found, on hawthorn.	Least Concern
120 HEMIPTERA-HETEROPTERA	Acanthosomatidae (Shieldbugs)	Elasmostethus interstinctus	1	2	Least Concern		Universal	Locally frequently found, on birch	Least Concern
120 HEMIPTERA-HETEROPTERA	Acanthosomatidae (Shieldbugs)	Elasmucha grisea	1	2	Least Concern		Universal	Commonly found. On birch Betula species	Least Concern
120 HEMIPTERA-HETEROPTERA	Alydidae	Alydus calcaratus	1	2			Southern Restricted	Locally frequently found, on heathland	
120 HEMIPTERA-HETEROPTERA	Berytinidae (Stiltbugs)	Berytinus hirticornis	1	2	Nationally Scarce		Southern Restricted	Infrequently found. Local to dry, sparsely vegetated areas.	Nationally Scarce
120 HEMIPTERA-HETEROPTERA	Cimicidae (Flowerbugs)	Anthocoris nemorum	1	2			Universal	Commonly found. It occurs on trees and shrubs and eats small insects such as aphids and other plant bugs.	
120 HEMIPTERA-HETEROPTERA	Coreidae (Squashbugs)	Ceralephus lividus	1	2	Least Concern		Southern Restricted	Frequently found.	Least Concern
120 HEMIPTERA-HETEROPTERA	Coreidae (Squashbugs)	Coreus marginalis	1	2	Least Concern		Southern Widespread	Commonly found. On Rumex and Polygonum	Least Concern
120 HEMIPTERA-HETEROPTERA	Coreidae (Squashbugs)	Coriomoris denticulatus	1	2	Least Concern		Southern widespread	Frequently found. Feeds on legumes.	Least Concern
120 HEMIPTERA-HETEROPTERA (Bugs)	Coreidae (Squashbugs)	Gonocerus acutaequalatus	1	2	RDB 1		Southern Restricted	Infrequently found. For many years it was restricted to a single site in Surrey, but has recently spread throughout the south-east. Originally associated with box, it now occurs on hawthorn, rose, honeysuckle and buckthorn, feeding on the fruits.	RDB 1
120 HEMIPTERA-HETEROPTERA	Coreidae (Squashbugs)	Leptoglossus occidentalis	0	1			Southern Restricted	Increasingly frequently found. A new arrival. Associated with pines	
120 HEMIPTERA-HETEROPTERA	Cydnidae (Shieldbugs)	Tritomegas bicolor	1	2	Least Concern		Universal	Commonly found, on Lamiaceae	Least Concern
120 HEMIPTERA-HETEROPTERA (Bugs)	Cydnidae (Shieldbugs)	Tritomegas sexmaculatus	1	2			Southern Restricted	Infrequently found. First recorded in UK 2011. Associated with Black Horehound.	
120 HEMIPTERA-HETEROPTERA (Bugs)	Lygaeidae (Groundbugs)	Eremocoris podagricus	1	2			Southern Restricted	Frequently found. Associated with bare areas on chalky and sandy ground.	
120 HEMIPTERA-HETEROPTERA	Lygaeidae (Groundbugs)	Heterogaster urticae	1	2			Southern Widespread	Commonly found on nettles	
120 HEMIPTERA-HETEROPTERA	Lygaeidae (Groundbugs)	Ischnodemus sabuleti	0	1			Southern Restricted	Commonly found. Usually in wetland habitats. Reed Beds.	
120 HEMIPTERA-HETEROPTERA	Lygaeidae (Groundbugs)	Kleidocerys resedae	1	2			Universal	Commonly found on a variety of trees and bushes	
120 HEMIPTERA-HETEROPTERA (Bugs)	Lygaeidae (Groundbugs)	Nysius senecionis	1	2			Southern Widespread	Locally frequently found, on ragwort and Common Fleabane. Recent colonist.	
120 HEMIPTERA-HETEROPTERA	Lygaeidae (Groundbugs)	Peritrechus geniculatus	0	1			Southern Widespread	Commonly found, in dry grassland habitats	
120 HEMIPTERA-HETEROPTERA (Bugs)	Lygaeidae (Groundbugs)	Scolopostethus grandis	1	2			Southern Widespread	Commonly found. Amongst leaves and other vegetation litter at the bottom of hedgerows and in woodland. Thought to feed on fungi growing on dead vegetable matter.	
120 HEMIPTERA-HETEROPTERA (Bugs)	Lygaeidae (Groundbugs)	Stygnocoris sabulosus	1	2			Universal	Commonly found on the ground, often at the roots of heather. Little is known about its development.	
120 HEMIPTERA-HETEROPTERA (Bugs)	Lygaeidae (Groundbugs)	Trapezonotus dispar	1	2			Southern Widespread	Commonly found. It occurs on dry open areas such as heathland and downland.	
120 HEMIPTERA-HETEROPTERA (Bugs)	Miridae (Capsid Bugs)	Adelphocoris lineolatus	1	2			Universal	Commonly found. The larval food plants are all Fabaceae, although the adults may be on Asteraceae.	
120 HEMIPTERA-HETEROPTERA	Miridae (Capsid Bugs)	Amblytylus nasutus	0	1			Southern Restricted	Commonly found, associated with grasses	
120 HEMIPTERA-HETEROPTERA	Miridae (Capsid Bugs)	Atractotomus mali	1	2			Southern Restricted	Commonly found. Associated with trees.	
120 HEMIPTERA-HETEROPTERA	Miridae (Capsid Bugs)	Atractotomus parvulus	0	1			Southern Restricted	Associated with pines.	
120 HEMIPTERA-HETEROPTERA	Miridae (Capsid Bugs)	Blepharidopterus angulatus	1	2			Universal	Commonly found, on foliage of broadleaf trees	
120 HEMIPTERA-HETEROPTERA (Bugs)	Miridae (Capsid Bugs)	Calocoris stysi	1	2			Universal	Commonly found. It occurs on nettles growing in shaded areas. Widely distributed in the British Isles.	
120 HEMIPTERA-HETEROPTERA	Miridae (Capsid Bugs)	Campyloneura virgula	1	2			Universal	Commonly found, in hedgerows and thickets	
120 HEMIPTERA-HETEROPTERA	Miridae (Capsid Bugs)	Capsus ater	0	1			Universal	Commonly found, associated with grasses	
120 HEMIPTERA-HETEROPTERA	Miridae (Capsid Bugs)	Charagochilus gyllenhalii	1	2			Universal	Locally frequently found, on bedstraws Galium species	
120 HEMIPTERA-HETEROPTERA	Miridae (Capsid Bugs)	Closterotomus norvegicus	1	2			Universal	Commonly found on a variety of plants	
120 HEMIPTERA-HETEROPTERA (Bugs)	Miridae (Capsid Bugs)	Deraeocoris flavilinea	1	2			Southern Restricted	Infrequently found. Only very recently recorded from Britain, this recent immigrant from European mainland has already been found in several English counties. It is likely that it will continue to spread and no conservation status is likely to be applied. Most records are for specimens beaten off the foliage of Sycamore Acer pseudoplatanus infested with aphids. The species is probably partially predatory.	
120 HEMIPTERA-HETEROPTERA	Miridae (Capsid Bugs)	Deraeocoris lutescens	1	2			Southern Widespread	Commonly found. On a variety of tree foliage	
120 HEMIPTERA-HETEROPTERA	Miridae (Capsid Bugs)	Dicyphus annulatus	1	2			Universal	Commonly found. Rest narrow	
120 HEMIPTERA-HETEROPTERA (Bugs)	Miridae (Capsid Bugs)	Dicyphus globulifer	1	2			Universal	Commonly found. Associated with Red and White Campions. Silene latifolia, S. dioica.	
120 HEMIPTERA-HETEROPTERA	Miridae (Capsid Bugs)	Dryophilicoris flavoquadrimaculatus	0	1			Universal	Commonly found. Associated with oak.	
120 HEMIPTERA-HETEROPTERA	Miridae (Capsid Bugs)	Harpocera thoracica	0	1			Universal	Commonly found. On oak Quercus species	
120 HEMIPTERA-HETEROPTERA	Miridae (Capsid Bugs)	Heterotoma planicornis	1	2			Universal	Commonly found on a variety of plant species	
120 HEMIPTERA-HETEROPTERA	Miridae (Capsid Bugs)	Leptopterna dolabrata	1	2			Universal	Commonly found. Associated with grasses	
120 HEMIPTERA-HETEROPTERA	Miridae (Capsid Bugs)	Liocoris tripustulatus	1	2			Universal	Commonly found, on Stinging Nettle Urtica dioica	
120 HEMIPTERA-HETEROPTERA (Bugs)	Miridae (Capsid Bugs)	Lygus pratensis	1	2	RDB 3		Southern Restricted	Infrequently found. There has been much taxonomic confusion in the past and many old records are unreliable. Found in a variety of habitats including woodland rides and grassland. Biology and ecology are uncertain. Increasing recently.	RDB 3
120 HEMIPTERA-HETEROPTERA	Miridae (Capsid Bugs)	Lygus rugulipennis	1	2			Universal	Commonly found on a variety of herbaceous plants	
120 HEMIPTERA-HETEROPTERA	Miridae (Capsid Bugs)	Megacoelem infusum	0	1			Southern Widespread	Commonly found. Omnivorous, on trees.	
120 HEMIPTERA-HETEROPTERA	Miridae (Capsid Bugs)	Megaloceroea recticornis	1	2			Southern Widespread	Commonly found, associated with grasses	
120 HEMIPTERA-HETEROPTERA	Miridae (Capsid Bugs)	Miris striatus	1	2			Universal	Frequently found, but local, especially in the south.	

120 HEMIPTERA-HETEROPTERA	Miridae (Capsid Bugs)	Neolygus contaminatus	1	2	Universal	Commonly found on Birch, Betula species		
120 HEMIPTERA-HETEROPTERA (Bugs)	Miridae (Capsid Bugs)	Neolygus viridis	1	2	Universal	Commonly found. Feeds on a variety of woody plant species, including Oak, Alder Buckthorn and Lime.		
120 HEMIPTERA-HETEROPTERA (Bugs)	Miridae (Capsid Bugs)	Notostira elongata	1	2	Southern Widespread	Commonly found, associated with grasses		
120 HEMIPTERA-HETEROPTERA (Bugs)	Miridae (Capsid Bugs)	Orthops kalmii	1	2	Universal	Commonly found. On several species of Apiaceae, the eggs are laid in the flower-head.		
120 HEMIPTERA-HETEROPTERA (Bugs)	Miridae (Capsid Bugs)	Phytocoris longipennis	1	2	Universal	Frequently found		
120 HEMIPTERA-HETEROPTERA (Bugs)	Miridae (Capsid Bugs)	Phytocoris varipes	1	2	Southern Widespread	Commonly found associated with grasses		
120 HEMIPTERA-HETEROPTERA (Bugs)	Miridae (Capsid Bugs)	Pliophorus perpleus	1	2	Southern Restricted	Locally frequently found. Feeds on aphids on deciduous trees.		
120 HEMIPTERA-HETEROPTERA (Bugs)	Miridae (Capsid Bugs)	Pinalitus cervinus	1	2	Universal	Commonly found. The adults and young suck the sap of trees through the foliage.		
120 HEMIPTERA-HETEROPTERA (Bugs)	Miridae (Capsid Bugs)	Plagiognathus arbutorum	0	1	Universal	Commonly found. On a variety of herbaceous plants		
120 HEMIPTERA-HETEROPTERA (Bugs)	Miridae (Capsid Bugs)	Plagiognathus chrysanthemii	1	2	Universal	Commonly found. On a variety of herbaceous plants		
120 HEMIPTERA-HETEROPTERA (Bugs)	Miridae (Capsid Bugs)	Stenodema calcarata	1	2	Universal	Commonly found. Associated with grasses		
120 HEMIPTERA-HETEROPTERA (Bugs)	Miridae (Capsid Bugs)	Stenodema laevigata	1	2	Universal	Commonly found associated with grasses		
120 HEMIPTERA-HETEROPTERA (Bugs)	Miridae (Capsid Bugs)	Stenotus binotatus	1	2	Southern Widespread	Commonly found. Associated with grasses.		
120 HEMIPTERA-HETEROPTERA (Bugs)	Nabidae (Damselbugs)	Himacerus apterus	1	2	Southern Widespread	Commonly found. It is predacious on small insects and mites living on trees.		
120 HEMIPTERA-HETEROPTERA (Bugs)	Nabidae (Damselbugs)	Himacerus major	1	2	Universal	Commonly found in grassland habitats		
120 HEMIPTERA-HETEROPTERA (Bugs)	Nabidae (Damselbugs)	Himacerus mirmicoides	1	2	Southern Widespread	Commonly found. In grassland habitats		
120 HEMIPTERA-HETEROPTERA (Bugs)	Nabidae (Damselbugs)	Nabis ferus	1	2	Southern Widespread	Commonly found. Associated with grasslands.		
120 HEMIPTERA-HETEROPTERA (Bugs)	Nabidae (Damselbugs)	Nabis limbatus	0	1	Universal	Commonly found, in grassland habitats		
120 HEMIPTERA-HETEROPTERA (Bugs)	Nabidae (Damselbugs)	Nabis rugosus	1	2	Universal	Commonly found in grassland habitats		
120 HEMIPTERA-HETEROPTERA (Bugs)	Pentatomidae (Shieldbugs)	Aelia acuminata	1	2	Southern Restricted	Commonly found, associated with grasses	Least Concern	
120 HEMIPTERA-HETEROPTERA (Bugs)	Pentatomidae (Shieldbugs)	Dolycoris baccarum	1	2	Universal	Commonly found. On a variety of herbaceous plants.	Least Concern	
120 HEMIPTERA-HETEROPTERA (Bugs)	Pentatomidae (Shieldbugs)	Eurydema cleracea	1	2	Southern Restricted	Infrequently found. It feeds on the leaves of various crucifers, especially horse-radish and garlic mustard. Perhaps increased in recent years.	Least Concern	
120 HEMIPTERA-HETEROPTERA (Bugs)	Pentatomidae (Shieldbugs)	Legnotus limbosus	1	2	Southern Widespread	Commonly found. Associated with bedstraws, especially goose grass and lady's bedstraw.	Least Concern	
120 HEMIPTERA-HETEROPTERA (Bugs)	Pentatomidae (Shieldbugs)	Palomena prasina	1	2	Universal	Commonly found on a variety of herbaceous plants	Least Concern	
120 HEMIPTERA-HETEROPTERA (Bugs)	Pentatomidae (Shieldbugs)	Pentatoma rufipes	1	2	Universal	Commonly found it occurs on a variety of deciduous trees, the adults feeding, at least partially, on other insects.	Least Concern	
120 HEMIPTERA-HETEROPTERA (Bugs)	Pentatomidae (Shieldbugs)	Podops inuncta	1	2	Southern Widespread	Frequently found. In dry grassland habitats.	Least Concern	
120 HEMIPTERA-HETEROPTERA (Bugs)	Rhopalidae	Corisus hyoscyami	1	2	Southern Widespread	Commonly found, but local. Rest Harrow.	Least Concern	
120 HEMIPTERA-HETEROPTERA (Bugs)	Rhopalidae	Corisus hyoscyami	1	2	Southern Widespread	Commonly found, but local. Rest Harrow.		
120 HEMIPTERA-HETEROPTERA (Bugs)	Rhopalidae	Rhopalus subrivus	1	2	Southern Restricted	Commonly found. Often on St John's-wort Hypericum		
120 HEMIPTERA-HETEROPTERA (Bugs)	Scutelleridae (Shieldbugs)	Eurygaster testudinaria	1	2	Southern Restricted	Frequently found. Local, associated with grasses	Least Concern	
120 HEMIPTERA-HETEROPTERA (Bugs)	Tingidae (Lacebugs)	Derephysia foliaceae	1	2	Universal	Frequently found, but local. Associated with Ivy.		
120 HEMIPTERA-HETEROPTERA (Bugs)	Tingidae (Lacebugs)	Kalama tricornis	0	1	Southern Widespread	Locally frequently found. On dry, often sparsely vegetated soils		
120 HEMIPTERA-HETEROPTERA (Bugs)	Tingidae (Lacebugs)	Tingis ampliata	1	2	Southern Widespread	Commonly found on Creeping Thistle Cirsium arvense		
130 HEMIPTERA-HOMOPTERA (Bugs)	Cercopidae (Froghoppers)	Neophilaenus lineatus	0	1	Universal	Commonly found. On grasses		
130 HEMIPTERA-HOMOPTERA (Bugs)	Cercopidae (Froghoppers)	Philaenus spumarius	1	2	Universal	Commonly found. On a variety of trees and herbaceous plants		
130 HEMIPTERA-HOMOPTERA (Bugs)	Cicadellidae (Leafhoppers)	Anaceratagallia ribauti	1	2	Southern Widespread	Frequently found. In dry grasslands on a range of plants.		
130 HEMIPTERA-HOMOPTERA (Bugs)	Cicadellidae (Leafhoppers)	tassus lano	0	1	Universal	Commonly found on oak		
130 HEMIPTERA-HOMOPTERA (Bugs)	Delphacidae (Planthoppers)	Asiraca clavicornis	1	2	Southern Restricted	Locally Frequently found. On grasses. Apparently much declined but still frequent in the London district.		
130 HEMIPTERA-HOMOPTERA (Bugs)	Delphacidae (Planthoppers)	Hyledelphax elegantulus	1	2	Universal	Commonly found.		
130 HEMIPTERA-HOMOPTERA (Bugs)	Delphacidae (Planthoppers)	Stenocranus minutus	1	2	Southern Widespread	It occurs on grass in woods and meadows. Common in the southern half of Britain.		
130 HEMIPTERA-HOMOPTERA (Bugs)	Issidae (Planthoppers)	Issus coleoptratus	1	2	Southern Widespread	Frequently found. Associated with Ivy Hedera helix		
130 HEMIPTERA-HOMOPTERA (Bugs)	Membracidae (Planthoppers)	Centrotus cornutus	1	2	Universal	Frequently found, but local, feed on sap of oak.		
140 LEPIDOPTERA (Butterflies and Moths)	Adelidae	Adela reaumurella	0	1	Southern Widespread	Commonly found. The larvae feed on leaf litter.		
140 LEPIDOPTERA (Butterflies and Moths)	Adelidae	Cauchas fibulella	1	2	Universal	Commonly found. The larvae feed in the seed capsules of Germander Speedwell and on the leaves.		
140 LEPIDOPTERA (Butterflies and Moths)	Adelidae	Cauchas rufimitrella	0	1	Universal	Commonly found. The larvae feed on Brassicaceae.		
140 LEPIDOPTERA (Butterflies and Moths)	Adelidae	Nemophora metallica	1	2	Southern Widespread	Locally infrequently found. The larvae feed on the seeds and leaves of Scabious.		
140 LEPIDOPTERA (Butterflies and Moths)	Arctidae (Tiger Moths)	Eilema griseola	1	2	Southern Widespread	Frequently found. The larvae feed on lichens growing on bark, usually in damp areas.		
140 LEPIDOPTERA (Butterflies and Moths)	Arctidae (Tiger Moths)	Euplagia quadripunctaria	1	2	Nationally Scarce	Southern Restricted	Jersey Tiger Moth. Infrequently found. The larva feeds on the leaves of a range of herbs.	Nationally Scarce
140 LEPIDOPTERA (Butterflies and Moths)	Arctidae (Tiger Moths)	Mitochrista miniata	1	2	Southern Widespread	Common The larva feeds on lichens growing on old trees.		
140 LEPIDOPTERA (Butterflies and Moths)	Arctidae (Tiger Moths)	Tyria jacobaeae	1	2	Universal	The Cinnabar moth. Commonly found. Larvae feed on Ragwort.	Section 41 species	
140 LEPIDOPTERA (Butterflies and Moths)	Choruetidae	Anthophila fabriciana	1	2	Southern Widespread	Nettle Tap. Commonly found. Feeds on the leaves of Stinging Nettle.		
140 LEPIDOPTERA (Butterflies and Moths)	Cosmopterigidae	Pancalia leuwenhoekella	1	2	Nationally Scarce b	Universal	Very locally frequently found. Associated with Hairy Violet.	Nationally Scarce b
140 LEPIDOPTERA (Butterflies and Moths)	Crambidae	Agriphila geniculea	1	2	Universal	Commonly found. The larva feeds on various grasses. Widespread in dry pasture and coastal sandhills throughout Britain.		
140 LEPIDOPTERA (Butterflies and Moths)	Crambidae	Agriphila straminea	1	2	Universal	Commonly found. The larvae feed on grasses.		
140 LEPIDOPTERA (Butterflies and Moths)	Crambidae	Agriphila tristella	1	2	Universal	Commonly found, in grasslands.		
140 LEPIDOPTERA (Butterflies and Moths)	Crambidae	Chrysoteuchia culmella	0	1	Universal	Commonly found. The larva feeds internally in the bases of various grasses. Often abundant in open, grassy areas.		
140 LEPIDOPTERA (Butterflies and Moths)	Crambidae	Crambus lathoniellus	1	2	Universal	Commonly found. The larvae feed on the stems of various grasses.		
140 LEPIDOPTERA (Butterflies and Moths)	Crambidae	Evergestis forficalis	1	2	Universal	Very frequently found. Variety of habitats. On Brassicaceae.		
140 LEPIDOPTERA (Butterflies and Moths)	Crambidae	Oncocera semirubella	1	2	Nationally Scarce b	Southern Restricted	Locally commonly found. The larva feeds on common Bird's-foot trefoil and white clover.	Nationally Scarce b
140 LEPIDOPTERA (Butterflies and Moths)	Crambidae	Pleuroptya ruralis	1	2	Universal	Commonly found. The larva feeds on nettle, living in a rolled leaf.		
140 LEPIDOPTERA (Butterflies and Moths)	Crambidae	Pyrausta aurata	1	2	Universal	Locally frequently found. The larvae feed on Labaites.		
140 LEPIDOPTERA (Butterflies and Moths)	Crambidae	Pyrausta purpuralis	1	2	Universal	Locally frequently found. The larvae feed on Labaites.		
140 LEPIDOPTERA (Butterflies and Moths)	Elachistidae	Elachista argentella	0	1	Universal	Commonly found. The larva mines the leaf of a number of species of grass.		
140 LEPIDOPTERA (Butterflies and Moths)	Gelechiidae	Helcystogramma rufescens	0	1	Nationally Scarce	Southern Restricted	Frequently found. The larvae feed on the leaves of various grasses.	Nationally Scarce
140 LEPIDOPTERA (Butterflies and Moths)	Geometridae (Looper Moths)	Cabera exanthemata	1	2	Universal	Common The larva feeds on sallow.		
140 LEPIDOPTERA (Butterflies and Moths)	Geometridae (Looper Moths)	Camptogramma bilineata	1	2	Universal	Yellow Shell Moth. Commonly found. Caterpillar feeds on a variety of low-growing plants.		
140 LEPIDOPTERA (Butterflies and Moths)	Geometridae (Looper Moths)	Chiasmia clathrata	1	2	Universal	Latticed Heath. Commonly found, possibly also a migrant. The larva feeds on a variety of legumes.		
140 LEPIDOPTERA (Butterflies and Moths)	Geometridae (Looper Moths)	Colostygia pectinaria	1	2	Universal	Green Carpet Moth. Frequently found. The larva feeds on bedstraws.		
140 LEPIDOPTERA (Butterflies and Moths)	Geometridae (Looper Moths)	Cosmorhoe ocellata	1	2	Universal	Purple-bar moth. Commonly found. The larvae feed on the leaves of bedstraws and related plants.		
140 LEPIDOPTERA (Butterflies and Moths)	Geometridae (Looper Moths)	Lomaspiis marginata	0	1	Universal	The larvae feed on sallow and aspen.		
140 LEPIDOPTERA (Butterflies and Moths)	Geometridae (Looper Moths)	Lomographa temerata	1	2	Universal	Commonly found. The larvae feed on the leaves of a variety of woody species.		
140 LEPIDOPTERA (Butterflies and Moths)	Geometridae (Looper Moths)	Scotopteryx chenopodiata	1	2	A UK BAP species	Universal	Shaded Broad-bar moth. Frequently found. The larva feeds on species of vetch and clover.	A UK BAP species
140 LEPIDOPTERA (Butterflies and Moths)	Geometridae (Looper Moths)	Xanthorhoe spadicearia	0	1	Universal	Red Twin-spot Carpet Moth. Commonly found. Larva feeds on a range of herbaceous plants.		
140 LEPIDOPTERA (Butterflies and Moths)	Glyphipterigidae	Glyphipterix simplicella	1	2	Universal	Commonly found. The larvae mine the stems of grass.		
140 LEPIDOPTERA (Butterflies and Moths)	Gracillariidae	Phyllonorycter corylifoliella	1	2	Universal	Commonly found. The larva mines within the leaves of a number of different rosaceous trees.		
140 LEPIDOPTERA (Butterflies and Moths)	Hesperiidae (Skipper Butterflies)	Ochlodes sylvanus	0	1	Least Concern	Southern Widespread	Large Skipper butterfly. Commonly found. The larvae feed on taller grasses.	Least Concern
140 LEPIDOPTERA (Butterflies and Moths)	Hesperiidae (Skipper Butterflies)	Thymelicus lineola	1	2	Least Concern	Southern Restricted	Essex Skipper butterfly. Commonly found. The larva feeds on various grasses, particularly cock's-foot and creeping soft-grass. More or less restricted to southern and eastern England, but apparently spreading.	Least Concern
140 LEPIDOPTERA (Butterflies and Moths)	Hesperiidae (Skipper Butterflies)	Thymelicus sylvestris	1	2	Least Concern	Southern Widespread	Small Skipper butterfly. Commonly found. The larva feeds on grasses, especially Holcus spp.	Least Concern
140 LEPIDOPTERA (Butterflies and Moths)	Incurvariidae	Nemophora degeerella	1	2	Southern Widespread	Commonly found. It occurs in damp woodland, usually with bluebells. The larvae feed in leaf litter.		

140 LEPIDOPTERA (Butterflies and Moths)	Lycanidae (Blue Butterflies)	<i>Aricia agestis</i>	0	1	Least Concern	Southern Widespread	Brown Argus butterfly. Frequently found but local. A species associated with calcareous grassland, where the caterpillars feed on rockrose, or heathland/ heathy woodland, where they feed on cranesbill and storksbill. The larvae are attended by ants.	Least Concern
140 LEPIDOPTERA (Butterflies and Moths)	Lycanidae (Blue Butterflies)	<i>Celastrina argiolus</i>	1	2	Least Concern	Southern Widespread	Holly Blue butterfly. Commonly found. There are two generations a year, larvae of the first feeding principally on the flowers of holly and of the second on buds of ivy.	Least Concern
140 LEPIDOPTERA (Butterflies and Moths)	Lycanidae (Blue Butterflies)	<i>Lycena phlaeas</i>	0	1	Least Concern	Universal	Small Copper butterfly. Locally frequently found. The larva feeds on various species of sorrel growing in open situations.	Least Concern
140 LEPIDOPTERA (Butterflies and Moths)	Lycanidae (Blue Butterflies)	<i>Polyommatus icarus</i>	1	2	Least Concern	Universal	Common Blue butterfly. Commonly found. The larva feeds on various legumes, especially bird's-foot trefoil.	Least Concern
140 LEPIDOPTERA (Butterflies and Moths)	Lymantriidae (Tussock Moths)	<i>Orgyia antiqua</i>	1	2		Universal	Vapourer moth. Commonly found. The larvae feed on most deciduous trees and shrubs.	
140 LEPIDOPTERA (Butterflies and Moths)	Lyonetidae	<i>Lyonetia clerkeella</i>	1	2		Universal	Commonly found. The larva mines the leaves of various rosaceous trees.	
140 LEPIDOPTERA (Butterflies and Moths)	Nepticulidae	<i>Stigmella aurella</i>	1	2		Universal	Commonly found. The larvae mine within the leaves of bramble and other rosaceous plants.	
140 LEPIDOPTERA (Butterflies and Moths)	Nepticulidae	<i>Stigmella ulmivora</i>	0	1		Southern Widespread	The larvae mine within the leaves of elm. Common throughout much of England and Wales.	
140 LEPIDOPTERA (Butterflies and Moths)	Noctuidae (Cut-worm Moths)	<i>Acronicta rumicis</i>	1	2	2 A UK BAP species	Universal	The Knot Grass moth. Commonly found. The bristly larvae feed on a range of trees, shrubs and low plants.	A UK BAP species
140 LEPIDOPTERA (Butterflies and Moths)	Noctuidae (Cut-worm Moths)	<i>Autographa gamma</i>	1	2		Migrant	Silver Y moth. Migrant. Very commonly found. It flies readily by day and can be seen at dusk hovering over nectar sources.	
140 LEPIDOPTERA (Butterflies and Moths)	Noctuidae (Cut-worm Moths)	<i>Calophasia lunula</i>	1	2		Southern Restricted	Frequently found, but local. Larva feeds on Toadflaxes.	
140 LEPIDOPTERA (Butterflies and Moths)	Noctuidae (Cut-worm Moths)	<i>Eremobia ochroleuca</i>	1	2		Southern Widespread	The Dusky Sallow. Commonly found. The larvae feed on grasses.	
140 LEPIDOPTERA (Butterflies and Moths)	Noctuidae (Cut-worm Moths)	<i>Euclidia glyphica</i>	1	2		Universal	Burnet Companion moth. Commonly found. The larvae feeds on trefoils and clovers.	
140 LEPIDOPTERA (Butterflies and Moths)	Noctuidae (Cut-worm Moths)	<i>Orthosia cerasi</i>	1	2		Universal	Common Quaker moth. Commonly found. The larva feeds on trees such as oak, sallow and hazel.	
140 LEPIDOPTERA (Butterflies and Moths)	Noctuidae (Cut-worm Moths)	<i>Pseudoips prasinana</i>	1	2		Southern Widespread	Common The larvae feed on oak, birch, beech and other deciduous trees.	
140 LEPIDOPTERA (Butterflies and Moths)	Noctuidae (Cut-worm Moths)	<i>Rivula sericealis</i>	1	2		Southern Restricted	Straw Dot moth. Commonly found. The larvae feed on various grasses.	
140 LEPIDOPTERA (Butterflies and Moths)	Nymphalidae (Nymphalid, Fritillary and Brown Butterflies)	<i>Aglais urticae</i>	1	2	Least Concern	Universal	Small Tortoiseshell. Commonly found. The larvae feed on common nettle, living communally.	Least Concern
140 LEPIDOPTERA (Butterflies and Moths)	Nymphalidae (Nymphalid, Fritillary and Brown Butterflies)	<i>Aphantopus hyperantus</i>	1	2	Least Concern	Universal	Ringlet butterfly. Commonly found. The larva feeds on grass.	Least Concern
140 LEPIDOPTERA (Butterflies and Moths)	Nymphalidae (Nymphalid, Fritillary and Brown Butterflies)	<i>Inachis io</i>	1	2	Least Concern	Southern Widespread	Peacock butterfly. Commonly found. The larvae feed on common nettle, living communally.	Least Concern
140 LEPIDOPTERA (Butterflies and Moths)	Nymphalidae (Nymphalid, Fritillary and Brown Butterflies)	<i>Inachis io</i>	1	2	Least Concern	Southern Widespread	Peacock butterfly. Commonly found. The larvae feed on common nettle, living communally.	Least Concern
140 LEPIDOPTERA (Butterflies and Moths)	Nymphalidae (Nymphalid, Fritillary and Brown Butterflies)	<i>Maniola jurtina</i>	1	2	Least Concern	Universal	Meadow Brown butterfly. Commonly found. The larva feeds on many species of grass, preferring the finer varieties. It occurs in open grassy situations.	Least Concern
140 LEPIDOPTERA (Butterflies and Moths)	Nymphalidae (Nymphalid, Fritillary and Brown Butterflies)	<i>Melanargia galathea</i>	1	2	Least Concern	Southern Widespread	Marbled White. Frequently found. The larvae feed on a number of grass species where there is a tussocky structure comprising coarser and finer grasses.	Least Concern
140 LEPIDOPTERA (Butterflies and Moths)	Nymphalidae (Nymphalid, Fritillary and Brown Butterflies)	<i>Pararge aegeria</i>	1	2	Least Concern	Universal	Speckled Wood butterfly. Commonly found. Associated with shady woodlands, although it still requires patches of sunlight. The larva feeds on grasses, usually in sheltered situations such as woodland and scrub.	Least Concern
140 LEPIDOPTERA (Butterflies and Moths)	Nymphalidae (Nymphalid, Fritillary and Brown Butterflies)	<i>Polygona calbum</i>	1	2	Least Concern	Southern Widespread	Comma butterfly. Commonly found. The larva feeds on the leaves of nettle, elm and hop.	Least Concern
140 LEPIDOPTERA (Butterflies and Moths)	Nymphalidae (Nymphalid, Fritillary and Brown Butterflies)	<i>Pyronia tithonus</i>	1	2	Least Concern	Southern Widespread	Gatekeeper butterfly. Commonly found. The larva feeds on various grasses, narrow-bladed species being preferred.	Least Concern
140 LEPIDOPTERA (Butterflies and Moths)	Nymphalidae (Nymphalid, Fritillary and Brown Butterflies)	<i>Vanessa atalanta</i>	1	2	Least Concern	Migrant	Red Admiral butterfly. Commonly found. Migrant. The larva feeds on nettle. The adult is a migrant and can turn up almost anywhere.	Least Concern
140 LEPIDOPTERA (Butterflies and Moths)	Ochsenheimeridae	<i>Ochsenheimeria taurella</i>	0	1		Southern Widespread	Frequently found. The larvae feed on various species of grass, mining the lower stem.	
140 LEPIDOPTERA (Butterflies and Moths)	Oecophoridae	<i>Alabonia geoffrella</i>	1	2		Southern Widespread	The larvae develop in dead wood and have been recorded from hazel and sallow. Locally common in much of England and Wales.	
140 LEPIDOPTERA (Butterflies and Moths)	Oecophoridae	<i>Carcina quercana</i>	1	2		Universal	Common The larva feeds on leaves of various deciduous trees.	
140 LEPIDOPTERA (Butterflies and Moths)	Pieridae (White Butterflies)	<i>Anthocharis cardamines</i>	1	2	Least Concern	Universal	Orange Tip butterfly. Commonly found and highly mobile. The larvae feed on the flowers and developing seed pods of the taller-growing Brassicaceae, especially lady's smock, Cardamine sp. and hedge mustard, <i>Alliaria petiolata</i> .	Least Concern
140 LEPIDOPTERA (Butterflies and Moths)	Pieridae (White Butterflies)	<i>Gonepteryx rhamni</i>	1	2	Least Concern	Southern Widespread	Bristle-thorn butterfly. Commonly found. The larva feeds on buckthorns.	Least Concern
140 LEPIDOPTERA (Butterflies and Moths)	Pieridae (White Butterflies)	<i>Pieris brassicae</i>	1	2	Least Concern	Universal	Large White butterfly. Commonly found. The larva feeds on various wild crucifers and legumes as well as cultivated cabbage.	Least Concern
140 LEPIDOPTERA (Butterflies and Moths)	Pieridae (White Butterflies)	<i>Pieris napi</i>	1	2	Least Concern	Universal	Green-veined White. Commonly found. The larva feeds on wild crucifers, preferring those growing in damp and sheltered areas.	Least Concern
140 LEPIDOPTERA (Butterflies and Moths)	Pieridae (White Butterflies)	<i>Pieris rapae</i>	1	2	Least Concern	Universal	Small White butterfly. Commonly found. The larva feeds on a range of wild crucifers as well as cultivated ones.	Least Concern
140 LEPIDOPTERA (Butterflies and Moths)	Psychidae	<i>Psyche casta</i>	1	2		Universal	Common A sexually dimorphic moth, the males are winged, but the females are wingless and remain in the larval case which is made from lengths of dried grass.	
140 LEPIDOPTERA (Butterflies and Moths)	Pterophoridae	<i>Merrifieldia balodactylus</i>	0	1	Nationally Scarce b	Southern Widespread	Locally commonly found. The larva feeds on Marjoram.	Nationally Scarce b
140 LEPIDOPTERA (Butterflies and Moths)	Pterophoridae	<i>Stenoptilia pterodactyla</i>	1	2		Universal	Commonly found. The larva feeds on the flowers of germander speedwell.	
140 LEPIDOPTERA (Butterflies and Moths)	Pyralidae	<i>Crambus pascuella</i>	0	1		Universal	Commonly found. The early stages are apparently undescribed, but related species feed on grasses.	
140 LEPIDOPTERA (Butterflies and Moths)	Pyralidae	<i>Homoeosoma sinuella</i>	1	2		Southern Widespread	The larva feeds in the rootstocks of plantain. Locally common in southern Britain.	
140 LEPIDOPTERA (Butterflies and Moths)	Pyralidae	<i>Scoparia pyralis</i>	1	2		Universal	Commonly found. The larvae are believed to feed on decaying plant material.	
140 LEPIDOPTERA (Butterflies and Moths)	Tortricidae (Leaf-roller Moths)	<i>Celypha lacunana</i>	1	2		Universal	Commonly found. Feeds on the leaves of a variety of herbaceous plants.	
140 LEPIDOPTERA (Butterflies and Moths)	Tortricidae (Leaf-roller Moths)	<i>Cochylis atricapitana</i>	1	2		Universal	Commonly found. The larva feeds in the stems of Ragworts.	
140 LEPIDOPTERA (Butterflies and Moths)	Tortricidae (Leaf-roller Moths)	<i>Cochylis molliculana</i>	1	2		Southern Restricted	The larva feeds in the flowerheads of bristly oxtongue. A recent addition to the British list, now established in parts of south-eastern England.	
140 LEPIDOPTERA (Butterflies and Moths)	Tortricidae (Leaf-roller Moths)	<i>Grapholita compositella</i>	1	2		Universal	Commonly found. The larva feeds in the stems and flowerheads of species of clover.	
140 LEPIDOPTERA (Butterflies and Moths)	Tortricidae (Leaf-roller Moths)	<i>Hedya nubiferana</i>	0	1		Universal	Commonly found. The larvae feed on a range of deciduous shrubs.	
140 LEPIDOPTERA (Butterflies and Moths)	Tortricidae (Leaf-roller Moths)	<i>Hedya pruniana</i>	0	1		Universal	Commonly found. The larvae feed on blackthorn, spinning the leaves.	
140 LEPIDOPTERA (Butterflies and Moths)	Tortricidae (Leaf-roller Moths)	<i>Lathronympha strigana</i>	1	2		Universal	Commonly found. The larva feeds on various species of St John's-wort, spinning a terminal shoot.	
140 LEPIDOPTERA (Butterflies and Moths)	Tortricidae (Leaf-roller Moths)	<i>Notocella cynosbatella</i>	1	2		Universal	Common The larva feeds in the flower buds and shoots of rose.	
140 LEPIDOPTERA (Butterflies and Moths)	Tortricidae (Leaf-roller Moths)	<i>Pseudargyrotoza conwagana</i>	0	1		Universal	Commonly found. The larva feeds in the seeds of ash and the berries of privet.	
140 LEPIDOPTERA (Butterflies and Moths)	Yponomeutidae	<i>Argyresthia albistria</i>	1	2		Universal	Commonly found. The larvae mine shoots of blackthorn.	
140 LEPIDOPTERA (Butterflies and Moths)	Yponomeutidae	<i>Argyresthia spinosella</i>	1	2		Universal	The larvae mine developing flower-shoots of blackthorn. Widespread and common in England and Wales, local in eastern Scotland.	
140 LEPIDOPTERA (Butterflies and Moths)	Yponomeutidae	<i>Plutella xylostella</i>	1	2		Universal	Migrant The larva feeds on various species of crucifer. A migrant species, frequently very common.	
140 LEPIDOPTERA (Butterflies and Moths)	Yponomeutidae	<i>Scythropia crataegella</i>	1	2		Southern Widespread	The Hawthorn moth. Commonly found. Larva feeds on rosaceous shrubs, initially in a leaf mine.	
140 LEPIDOPTERA (Butterflies and Moths)	Yponomeutidae	<i>Yponomeuta cagnagella</i>	1	2		Universal	Commonly found, but scarcer to the north. The larvae feed gregariously on the foliage of Spindle.	
140 LEPIDOPTERA (Butterflies and Moths)	Yponomeutidae	<i>Yponomeuta evonymella</i>	1	2		Universal	Commonly found. The larvae feed gregariously on Bird Cherry.	
140 LEPIDOPTERA (Butterflies and Moths)	Zygaenidae (Burnett and Forester Moths)	<i>Zygaena lonicerae</i>	1	2		Southern Widespread	Narrow-bordered 5-spot Burnet moth. Commonly found. The larva feeds on meadow vetchling but also needs long vegetation on which to make its cocoon. On Downland.	
150 COLEOPTERA (Beetles)	Anobiidae (Woodworm Beetles)	<i>Anobium fulvicorne</i>	0	1		Southern Restricted	Frequently found. Breeds in dead wood	
150 COLEOPTERA (Beetles)	Anobiidae (Woodworm Beetles)	<i>Ochina ptinoides</i>	1	2		Southern Widespread	Locally frequently found. Breeds in dead ivy stems.	
150 COLEOPTERA (Beetles)	Anthribidae	<i>Platyrhinus resinosis</i>	1	2		Southern Widespread	Frequently found. A specialist feeder on King Alfred's Cake fungus, <i>Daldinia</i> sp. on Ash.	
150 COLEOPTERA (Beetles)	Apionidae (Weevils)	<i>Aspidapion radiolus</i>	1	2		Universal	Frequently found. On mallow Malva species	

150 COLEOPTERA (Beetles)	Apionidae (Weevils)	Catapion seniculus	1	2			Southern Widespread	Commonly found. On Trifolium species, mainly T. hybridum and possibly Medicago spp. Larvae in stems.				
150 COLEOPTERA (Beetles)	Apionidae (Weevils)	Holotrichapion pisi	1	2			Universal	Commonly found. Associated with Medicago species, larvae develop in vegetative buds.				
150 COLEOPTERA (Beetles)	Apionidae (Weevils)	Ischnopterapion loti	1	2			Universal	Commonly found, on Bird's-foot Trefoil Lotus corniculatus				
150 COLEOPTERA (Beetles)	Apionidae (Weevils)	Malvapion malvae	1	2			Southern Restricted	Frequently found. On mallow Malva species				
150 COLEOPTERA (Beetles)	Apionidae (Weevils)	Oxystoma pomonae	1	2			Southern Restricted	Frequently found. On Yellow Vetchling Lathyrus pratensis				
150 COLEOPTERA (Beetles)	Apionidae (Weevils)	Perapion hydrolopathi	1	2			Universal	Commonly found, on dock Rumex species				
150 COLEOPTERA (Beetles)	Apionidae (Weevils)	Perapion violaceum	1	2			Universal	Commonly found, on dock Rumex species				
150 COLEOPTERA (Beetles)	Apionidae (Weevils)	Protapion apricans	1	2			Universal	Commonly found, on Red Clover Trifolium pratense				
150 COLEOPTERA (Beetles)	Apionidae (Weevils)	Protapion fulvipes	1	2			Universal	Commonly found, on clover Trifolium repens & T. hybridum				
150 COLEOPTERA (Beetles)	Apionidae (Weevils)	Taenapion urticarium	1	2			Southern Restricted	on Stinging Nettle Urtica dioica				
150 COLEOPTERA (Beetles)	Bruchidae (Seed Weevils)	Bruchidius imbricornis	1	2			Southern Restricted	Locally frequently found. A very recent discovery. Associated with Goat's Rue Calega officinalis. Larvae develop and pupate in the seeds.				
150 COLEOPTERA (Beetles)	Bruchidae (Seed Weevils)	Bruchidius varius	1	2			Southern Restricted	Commonly found, on clover Trifolium pratense & T. medium				
150 COLEOPTERA (Beetles)	Bruchidae (Seed Weevils)	Bruchus loti	1	2			Southern Restricted	Commonly found, on Bird's-foot Trefoil Lotus corniculatus				
150 COLEOPTERA (Beetles)	Bruchidae (Seed Weevils)	Bruchus rufimanus	1	2			Southern Widespread	Commonly found. On Yellow Vetchling Lathyrus pratensis, also on stored legume crops.				
150 COLEOPTERA (Beetles)	Bruchidae (Seed Weevils)	Bruchus rufipes	1	2			Southern Restricted	Commonly found. On Fabaceae.				
150 COLEOPTERA (Beetles)	Buprestidae	Trachys scrobiculatus	0	1	Nationally Scarce a		Southern Restricted	Very local and infrequently found. The larvae are leaf miners of Ground Ivy Glehoma hederacea and possibly other species of Labiatae. The adults are difficult to find and the species may be under recorded.		Nationally Scarce a		
150 COLEOPTERA (Beetles)	Byturidae (Raspberry Beetles)	Byturus ochraceus	1	2			Southern Widespread	Infrequently found. Widespread, but local, ? on Bramble				
150 COLEOPTERA (Beetles)	Byturidae (Raspberry Beetles)	Byturus tomentosus	1	2			Universal	Commonly found, on Rosaceae				
150 COLEOPTERA (Beetles)	Cantharidae (Soldier Beetles)	Cantharis decipiens	1	2	Least Concern		Southern Widespread	Commonly found, most frequently near woodland			Least Concern	
150 COLEOPTERA (Beetles)	Cantharidae (Soldier Beetles)	Cantharis rustica	0	1	Least Concern		Southern Widespread	Commonly found, in a variety of grassland habitats			Least Concern	
150 COLEOPTERA (Beetles)	Cantharidae (Soldier Beetles)	Malthinus flavolus	1	2	Least Concern		Universal	Commonly found, on the foliage of trees and shrubs. The larvae probably develop in dead wood.			Least Concern	
150 COLEOPTERA (Beetles)	Cantharidae (Soldier Beetles)	Malthinus seriepunctatus	1	2	Least Concern		Southern Widespread	Commonly found, in broadleaf woodland habitats. The larvae probably develop in dead wood.			Least Concern	
150 COLEOPTERA (Beetles)	Cantharidae (Soldier Beetles)	Rhagonycha fulva	1	2	Least Concern		Universal	Commonly found. In a wide variety of habitats.			Least Concern	
150 COLEOPTERA (Beetles)	Cantharidae (Soldier Beetles)	Rhagonycha lignosa	1	2	Least Concern		Universal	Commonly found, on the foliage of trees and shrubs			Least Concern	
150 COLEOPTERA (Beetles)	Cantharidae (Soldier Beetles)	Rhagonycha limbata	1	2	Least Concern		Southern Widespread	Commonly found. In grassland habitats			Least Concern	
150 COLEOPTERA (Beetles)	Cantharidae (Soldier Beetles)	Rhagonycha lutea	1	2	Nationally Scarce b		Southern Widespread	Commonly found but local. It prefers woodland margins with long grass and scrub. Both larvae and adults are probably predatory.		Nationally Scarce b	Least Concern	
150 COLEOPTERA (Beetles)	Carabidae (Ground Beetles)	Amara ovata	1	2	Least Concern		Universal	Commonly found. Feeds on seeds.			Least Concern	
150 COLEOPTERA (Beetles)	Carabidae (Ground Beetles)	Anchomenus dorsalis	0	1	least Concern		Universal	Commonly found. Open, disturbed areas.			least Concern	
150 COLEOPTERA (Beetles)	Carabidae (Ground Beetles)	Badister bullatus	1	2	Least Concern		Universal	Commonly found			Least Concern	
150 COLEOPTERA (Beetles)	Carabidae (Ground Beetles)	Bembidion lampros	1	2	Least Concern		Universal	Commonly found, on open dry soils, including arable land			Least Concern	
150 COLEOPTERA (Beetles)	Carabidae (Ground Beetles)	Demetrias atricapillus	1	2	Least Concern		Southern Widespread	Commonly found. In grassland habitats and cereal fields.			Least Concern	
150 COLEOPTERA (Beetles)	Carabidae (Ground Beetles)	Microlestes marusii	1	2	Least Concern		Southern Restricted	Commonly found. Associated with leaf litter on dry soils.			Least Concern	
150 COLEOPTERA (Beetles)	Carabidae (Ground Beetles)	Microlestes minutulus	0	1	Least Concern		Southern Restricted	Rarely found. A recent addition to the UK species list, coastal. Spreading in UK. Associated with dry vegetation litter.			Least Concern	
150 COLEOPTERA (Beetles)	Carabidae (Ground Beetles)	Notiophilus biguttatus	1	2	Least Concern		Universal	Very commonly found. In many different habitats, including			Least Concern	
150 COLEOPTERA (Beetles)	Carabidae (Ground Beetles)	Notiophilus palustris	0	1	least Concern		Universal	Commonly found.			least Concern	
150 COLEOPTERA (Beetles)	Carabidae (Ground Beetles)	Notiophilus quadripunctatus	1	2	Nationally Scarce b	Least Concern	NS	Southern Widespread	Local and infrequently found. Associated with sparsely vegetated ground such as woodland tracks, heathland, undercliffs and the sides of drainage ditches. It is predatory and may prefer acidic soils.	Nationally Scarce b	Least Concern	NS
150 COLEOPTERA (Beetles)	Carabidae (Ground Beetles)	Panagaeus bipustulatus	1	2	Nationally Scarce b	least Concern	NS	Southern Widespread	Infrequently found. Associated with sparsely vegetated sandy or chalky soils.	Nationally Scarce b	least Concern	NS
150 COLEOPTERA (Beetles)	Carabidae (Ground Beetles)	Paradromius linearis	1	2	Least Concern		Universal	Commonly found, in grassland habitats			Least Concern	NS
150 COLEOPTERA (Beetles)	Carabidae (Ground Beetles)	Philorhizus melanocephalus	1	2	Least Concern		Universal	Commonly found, in dry grassland habitats			Least Concern	NS
150 COLEOPTERA (Beetles)	Carabidae (Ground Beetles)	Scybalicus oblongisculus	1	2	RDB1	RDB 3	NR	Southern Restricted	Infrequently found. Dry places. Probably a seed feeder.	RDB1	RDB3	NR
150 COLEOPTERA (Beetles)	Carabidae (Ground Beetles)	Syntomus obscuriguttatus	1	2	Least Concern		Southern Restricted	Commonly found. Found in moss and litter on heavy soils in damp situations.			Least Concern	NR
150 COLEOPTERA (Beetles)	Carabidae (Ground Beetles)	Syntomus truncatellus	1	2	Least Concern		Southern Widespread	Frequently found. Associated with bare and revegetating ground in fields and woodlands.			Least Concern	NS
150 COLEOPTERA (Beetles)	Carabidae (Ground Beetles)	Trechus obtusus	1	2	Least Concern		Universal	Commonly found. In a variety of open habitats.			Least Concern	NS
150 COLEOPTERA (Beetles)	Cerambycidae (Long-horn Beetles)	Clytus arvensis	0	1			Southern Widespread	Commonly found in woods and hedgerows. The larvae breed in dry dead wood.				
150 COLEOPTERA (Beetles)	Cerambycidae (Long-horn Beetles)	Grammoptera ruficornis	1	2			Southern Widespread	Commonly found in woodland habitats. Larvae develop in small twigs.				
150 COLEOPTERA (Beetles)	Cerambycidae (Long-horn Beetles)	Paracorymbia fulva	0	1	RDB 3		Southern Restricted	Locally frequently found. Adults visit flowers. Not always found in areas with dead wood, probably breeds in herbaceous stems.		RDB 3		
150 COLEOPTERA (Beetles)	Cerambycidae (Long-horn Beetles)	Phytoecia cylindrica	0	1	Nationally Scarce b		Southern Widespread	Infrequently found. The larvae live in umbellifer stems in open grasslands.		Nationally Scarce b		
150 COLEOPTERA (Beetles)	Cerambycidae (Long-horn Beetles)	Pogonocherus hispidus	1	2			Southern Widespread	Frequently found but local, often on holly or apple, breeds in dead wood				
150 COLEOPTERA (Beetles)	Cerambycidae (Long-horn Beetles)	Rutpela maculata	1	2			Southern Widespread	Commonly found, adults visit flowers, breeds in tree stumps.				
150 COLEOPTERA (Beetles)	Cerambycidae (Long-horn Beetles)	Tetrops praeustus	1	2			Southern Widespread	Commonly found. The larvae develop in dead twigs. The adults are often found on Hawthorn blossom.				
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Altica palustris	1	2	Least Concern		Universal	Commonly found, on willowherb Epilobium			Least Concern	
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Cassida rubiginosa	1	2	Least Concern		Universal	Commonly found, on thistles			Least Concern	
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Cassida vibex	0	1	Least Concern		Southern Widespread	Commonly found, on thistles			Least Concern	
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Chaetocnema hortensis	0	1	Least Concern		Universal	Commonly found. It feeds on a range of grasses.			Least Concern	
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Chrysolina banksi	1	2	Least Concern		Southern Widespread	Locally frequently found, often coastal. Feed on a variety of herbaceous plants.			Least Concern	
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Chrysolina oricalcia	0	1	Nationally Scarce b	Least Concern	Universal	Locally infrequently found in dry grasslands. Feeds on the foliage of umbellifers.		Nationally Scarce b	Least Concern	
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Chrysolina polita	1	2	Least Concern		Universal	Commonly found, on Labiatae			Least Concern	
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Cryptocephalus fulvus	0	1	Least Concern		Southern Widespread	Locally commonly found, in dry grassland			Least Concern	
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Cryptocephalus hypochaeridis	1	2	Least Concern		NS	Southern Widespread	Frequently found on calcareous grasslands. Adults usually seen in flowers, especially those of Asteracea. Details of life-history not known.		Least Concern	NS
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Cryptocephalus labiatus	1	2	Least Concern		Universal	Commonly found, on foliage of broadleaf trees.			Least Concern	
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Cryptocephalus moraei	1	2	Least Concern		Southern Widespread	Frequently found. The adults and larvae feed on St. John's Wort growing in short vegetation.			Least Concern	
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Cryptocephalus pusillus	1	2	Least Concern		Southern Widespread	Commonly found, on foliage of broadleaf trees.			Least Concern	
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Derocrepis rufipes	0	1	Least Concern		Universal	Locally frequently found. On a wide range of Fabaceae. Adults on leaves and larvae probably at the roots.			Least Concern	
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Lilloceris illii	1	2	Not Applicable		Southern Widespread	Frequently found. Feeds on the leaves of the Lily family. An horticultural pest.			Not Applicable	
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Lochmaea crataegi	1	2	Least Concern		Southern Widespread	Commonly found on hawthorn Crataegus species			Least Concern	
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Longitarsus dorsalis	1	2	Nationally Scarce b	Least Concern	Southern Widespread	Locally frequently found. Phytophagous. Associated with ragwort Senecio		Nationally Scarce b	Least Concern	
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Neocrepidodera ferruginea	1	2	Least Concern		Southern Widespread	Frequently found, restricted to thistles?			Least Concern	
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Omorphus concolor	0	1	Least Concern		Universal	Locally frequently found. Feeds on Ivy.			Least Concern	
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Phaedon tumidulus	1	2	Least Concern		Universal	It feeds on the leaves of various umbellifers, especially hogweed.			Least Concern	
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Phyllotreta tetraginta	0	1	Least Concern		Universal	Frequently found. Often in damp places, feeding on Cardamine, but also feeds on Reseda.			Least Concern	
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Phyllotreta undulata	1	2	Least Concern		Universal	Commonly found. Most often associated with Brassicaceae, but may also be on Resedaceae and Chenopodiaceae			Least Concern	
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Podagrica fuscipes	0	1	Nationally Scarce b	Least Concern	NS	Southern Restricted	Frequently found, on Malvaceae, the larvae probably fed at the roots, the adults on the leaves.	Nationally Scarce b	Least Concern	NS
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Psyllodes chrysocephala	0	1	Least Concern		Universal	Very commonly found. A pest of cabbages.			Least Concern	
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Sermylasa halensis	1	2	Least Concern		Universal	Commonly found. Associated with Gallium species.			Least Concern	
150 COLEOPTERA (Beetles)	Chrysomelidae (Leaf Beetles)	Sphaeroderma testaceum	0	1	Least Concern		Universal	Commonly found, on thistles			Least Concern	
150 COLEOPTERA (Beetles)	Coccinellidae (Ladybird Beetles)	Adalia decempunctata	1	2			Universal	Commonly found, on foliage of broadleaf trees.				
150 COLEOPTERA (Beetles)	Coccinellidae (Ladybird Beetles)	Calvia quatuordecimguttata	1	2			Universal	Commonly found, on foliage of broadleaf trees.				
150 COLEOPTERA (Beetles)	Coccinellidae (Ladybird Beetles)	Chilocorus renipustulatus	1	2			Southern Widespread	Commonly found, on foliage of broadleaf trees, but mainly willow. Preys on scale insects.				
150 COLEOPTERA (Beetles)	Coccinellidae (Ladybird Beetles)	Coccinella septempunctata	1	2			Universal	Commonly found. In a wide variety of habitats				
150 COLEOPTERA (Beetles)	Coccinellidae (Ladybird Beetles)	Exochomus quadripustulatus	1	2			Universal	Commonly found, chiefly on pine. Feeds on scale insects.				
150 COLEOPTERA (Beetles)	Coccinellidae (Ladybird Beetles)	Harmonia axyridis	0	1			Southern Widespread	Harlequin Ladybird. Commonly found. A fairly large ladybird occurring in a wide range of colour patterns. It occurs on various herbaceous plants and trees, the larvae being predatory on aphids and other insects. A recent addition to the British fauna, spreading rapidly.				
150 COLEOPTERA (Beetles)	Coccinellidae (Ladybird Beetles)	Harmonia quadripunctata	0	1			Southern Restricted	Frequently found but local, on pine		Nationally Scarce b		
150 COLEOPTERA (Beetles)	Coccinellidae (Ladybird Beetles)	Hippodamia variegata	1	2	Nationally Scarce b		Southern Widespread	Frequently found but local in southern England and Wales. Associated with a variety of habitats especially dry grassland on sandy soils. The larvae and adults are predatory upon aphids.		Nationally Scarce b		
150 COLEOPTERA (Beetles)	Coccinellidae (Ladybird Beetles)	Propylea quatuordecimpunctata	1	2			Universal	Commonly found. In a wide variety of habitats				
150 COLEOPTERA (Beetles)	Coccinellidae (Ladybird Beetles)	Psyllobora vigintiduo-punctata	1	2			Southern Widespread	Commonly found. In grassland habitats				
150 COLEOPTERA (Beetles)	Coccinellidae (Ladybird Beetles)	Rhyzobius litura	0	1			Universal	Commonly found, in grassland habitats. Feeds on scale insects.				
150 COLEOPTERA (Beetles)	Coccinellidae (Ladybird Beetles)	Scymnus femoralis	1	2	Nationally Scarce b		Universal	Rarely found. Grasslands on sandy or chalky soils. Preys on aphids.		Nationally Scarce b		
150 COLEOPTERA (Beetles)	Coccinellidae (Ladybird Beetles)	Scymnus suturalis	0	1			Universal	Commonly found, on pine. Feeds on aphids.				

150 COLEOPTERA (Beetles)	Coccinellidae (Ladybird Beetles)	Subcoccinella vigintiquatuorpunctata	1	2	Universal	Commonly found, in dry grassland			
150 COLEOPTERA (Beetles)	Coccinellidae (Ladybird Beetles)	Tytthaspis sedecimpunctata	1	2	Universal	16-spot ladybird. Commonly found, in wet grassland			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Anthonomus rubi	1	2	Universal	Commonly found. On herbaceous Rosaceae species.			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Barypeithes pellicudus	1	2	Southern Restricted	Commonly found on low growing plants.			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Cathormiocerus spinosus	1	2	Universal	Locally infrequently found. Associated with grassland, both on sandy and soils. Phytophagous, probably polyphagous and parthenogenetic. The larvae may feed on plant roots or litter. It has been recorded from the base of Sheeps Sorrel, Bird's-foot Trefoil and Plantain species.	Nationally Scarce b		
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Ceutorhynchus pallidactylus	1	2	Universal	Commonly found, on Brassicaceae.			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Dorytomus rufatus	1	2	Universal	Commonly found, on willows Salix species			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Gloeocanus distinctus	1	2	Southern Widespread	Frequently found. On hawkweed Hieracium and hawkbit Leontodon			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Hylesinus toranio	0	1	Southern Widespread	Commonly found. It occurs on ash, the larvae breed in twigs.			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Hypera nigrirostris	1	2	Universal	Commonly found, on clover, especially Trifolium pratense			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Hypera postica	1	2	Southern Widespread	Commonly found. Feeds on Fabaceae.			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Larinus planus	0	1	Southern Restricted	Infrequently found in grassland habitats. Phytophagous. Associated with Creeping Thistle Cirsium arvense, Meadow Thistle C. dissectum, Marsh Thistle C. palustre, Spear Thistle C. vulgare and Musk Thistle Carduus nutans.	Nationally Scarce b		
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Magdalis cerasi	0	1	Southern Widespread	Locally frequently found. Primarily associated with oak, though also found on species of Rosaceae, particularly blackthorn, hawthorn, pear, apple and rowan. The larvae feed internally in dead twigs and small branches.	Nationally Scarce b		
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Mecinus pascuorum	1	2	Universal	Commonly found, on Ribwort Plantain Plantago lanceolata			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Mecinus pyraeaster	1	2	Universal	Commonly found, on Ribwort Plantain Plantago lanceolata			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Microplitis campestris	1	2	Southern Restricted	Frequently found. It occurs in open areas, usually on calcareous soils, the larvae developing in the receptacles of oxeye daisy. Local in southern England and Wales.	Nationally Scarce b		
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Nedys quadrimaculatus	1	2	Universal	Commonly found, on Stinging Nettle Urtica dioica.			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Otiorynchus ovatus	1	2	Universal	Frequently found. On sandy soils			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Phytolobus oblongus	1	2	Universal	Locally frequently found. On a variety of tree foliage.			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Phytolobus pomaceus	1	2	Southern Widespread	Commonly found. On Stinging Nettle Urtica dioica			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Phytolobus pyri	1	2	Universal	Commonly found, on a variety of tree species			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Phytolobus robertianus	1	2	Southern Widespread	Commonly found, in grassland habitats			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Rhinocyllus conicus	0	1	Southern Restricted	Infrequently found. Previously recorded from ten vice counties in southern England in the period before 1970 but greatly declined. Recent increase in frequency of recording. Found in grassland habitats, particularly on calcareous soils. Most records are for coastal sites but it also occurs inland. Phytophagous; associated with Creeping Thistle Cirsium arvense, Marsh Thistle C. palustre, Spear Thistle C. vulgare and Musk Thistle Carduus nutans.	Nationally Scarce a		
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Rhinusa antirrhini	1	2	Southern Widespread	Commonly found. Usually found inside the flowers of Linaria vulgaris, it is possible that the larvae develop in the flowers.			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Sitona hispidulus	1	2	Universal	Commonly found, on Trifolium species			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Sitona humeralis	1	2	Universal	Frequently found. Medicago.			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Sitona lepidus	1	2	Universal	Commonly found, on various species of Fabaceae.			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Sitona lineatus	1	2	Universal	Commonly found. On various species of Fabaceae			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Sitona sulcifrons	1	2	Universal	Locally commonly found. Feeds on Trifolium species.			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Sitona waterhousei	1	2	Southern Widespread	Infrequently found. Local, Lotus Coastal landslips, sandy grassland	Nationally Scarce b		
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Smicronyx reichii	1	2	Southern Restricted	Rarely found. Associated with Centaury and Blackstonia (Gentianaceae). The larvae feed in the seed heads. Mainly calcareous sites.	RDB 3		
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Strophosoma melanogrammum	0	1	Universal	Commonly found, on a variety of trees and shrubs			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Trichosirocalus troglodytes	1	2	Universal	Commonly found, on Ribwort Plantain Plantago lanceolata			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Tychius melloti	1	2	Southern Widespread	Infrequently found and localised. On meadow Melilotus species			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Tychius picirostris	1	2	Universal	Commonly found, on Trifolium species			
150 COLEOPTERA (Beetles)	Curculionidae (Weevils)	Zacliadus exiguus	1	2	Southern Widespread	Locally infrequently found. Associated with the smaller-flowered Cranesbills, especially Cut Leaved and Hedgerow Cranesbill Geranium dissectum and G. pyrenaicum.	Nationally Scarce b		
150 COLEOPTERA (Beetles)	Drilidae	Drilus flavescens	1	2	Southern Restricted	Infrequently found and local. Recent records for only the Isle of Wight, Hampshire, Surrey, Kent and Sussex. Seldom found away from chalk grassland, the larvae feed on snails. The female is flightless.	Nationally Scarce a	Least Concern	
150 COLEOPTERA (Beetles)	Elateridae (Click Beetles)	Agriotes pallidulus	1	2	Universal	Commonly found. In grassland habitats			
150 COLEOPTERA (Beetles)	Elateridae (Click Beetles)	Agriotes sputator	1	2	Southern Widespread	Commonly found, in grassland habitats			
150 COLEOPTERA (Beetles)	Elateridae (Click Beetles)	Athous bicolor	0	1	Southern Widespread	Commonly found, in dry grassland habitats			
150 COLEOPTERA (Beetles)	Elateridae (Click Beetles)	Athous haemorrhoidalis	0	1	Universal	Commonly found. In grassland and woodland edge habitats.			
150 COLEOPTERA (Beetles)	Histeridae	Kisister minimus	0	1	Southern Widespread	Locally frequently found, often near the coast but also occurs inland. Associated with dry grassland with short sparse vegetation.			
150 COLEOPTERA (Beetles)	Hydrophilidae	Helophorus flavipes	0	1	Universal	Very locally frequently found. In peaty pools and ponds on acidic heathland.			
150 COLEOPTERA (Beetles)	Kateretidae	Brachypterus glaber	0	1	Universal	Commonly found on stinging nettles.			
150 COLEOPTERA (Beetles)	Lampyridae	Lampyrus noctluca	1	2	Southern Widespread	The Glow-worm. Locally frequent, a mollusc predator; in grassland and hedge-bottoms			
150 COLEOPTERA (Beetles)	Lathridiidae	Cartodere bifasciata	0	1	Universal	Very commonly found. Associated with decaying vegetable material.			
150 COLEOPTERA (Beetles)	Melyridae	Cordylephus viridis	1	2	Southern Restricted	Frequently found, in dry grassland	Least Concern		
150 COLEOPTERA (Beetles)	Melyridae	Malachus bipustulatus	0	1	Southern Widespread	Commonly found, on flowers in grassland and woodland.	Least Concern		
150 COLEOPTERA (Beetles)	Mordellidae (Tumbling Flower Beetles)	Mordellistena pumila	1	2	Southern Restricted	Frequently found, on a variety of flowers			
150 COLEOPTERA (Beetles)	Mordellidae (Tumbling Flower Beetles)	Mordellochroa abdominalis	1	2	Southern Widespread	Frequently found, but local. Adults occur on flowers and larvae probably develop in dead wood or plant stems.	Least Concern		
150 COLEOPTERA (Beetles)	Nitidulidae (Pollen Beetles)	Meligethes aeneus	1	2	Universal	Commonly found. Breeds in flowers of Brassicaceae.			
150 COLEOPTERA (Beetles)	Nitidulidae (Pollen Beetles)	Meligethes planiusculus	1	2	Southern Widespread	on Viper's Bugloss Echium vulgare			
150 COLEOPTERA (Beetles)	Oedemeridae	Ischnomera cyanea	1	2	Southern Widespread	Frequently found. Two species (I. caerulea and I. cyanea) were previously confused in Britain under the name I. caerulea. I. cyanea is by far the most frequent and is widely distributed though local in England and Wales. Found mainly in ancient broad-leaved woodland, pasture-woodland and old hedgerows. Adults frequently visit flowers, including hawthorn and Hogweed. The larvae develop in dead wood of a variety of tree species.	Nationally Scarce b	Least Concern	NR
150 COLEOPTERA (Beetles)	Oedemeridae	Oedemera lurida	1	2	Southern Widespread	Commonly found. On a variety of flowers.	Least Concern		
150 COLEOPTERA (Beetles)	Oedemeridae	Oedemera nobilis	1	2	Southern Widespread	Commonly found. On a variety of flowers	Least Concern		
150 COLEOPTERA (Beetles)	Phalacridae	Olibrus aeneus	1	2	Universal	Commonly found, on mayweeds and related species			
150 COLEOPTERA (Beetles)	Phalacridae	Olibrus liquidus	0	1	Southern Widespread	Local, in flowers of yellow composites.			
150 COLEOPTERA (Beetles)	Phalacridae	Phalacrus corniscus	1	2	Southern Widespread	Frequently found. In flowers.			
150 COLEOPTERA (Beetles)	Phalacridae	Stilbus testaceus	1	2	Southern Widespread	Frequently found. In flowers.			
150 COLEOPTERA (Beetles)	Pyrochroidae (Cardinal Beetles)	Pyrochroa coccinea	1	2	Southern Restricted	Infrequently found. Associated with hardwood timber where the larvae prey on other invertebrates under the bark.	Nationally Scarce b	Least Concern	
150 COLEOPTERA (Beetles)	Pyrochroidae (Cardinal Beetles)	Pyrochroa serricornis	0	1	Southern Widespread	Frequently found. The larvae are predatory under the bark of fallen trees in shady woodland.	Least Concern		
150 COLEOPTERA (Beetles)	Rhynchitidae (Weevils)	Neocoenorrhynchus germanicus	1	2	Universal	Common, on various herbaceous & shrubby Rosaceae			
150 COLEOPTERA (Beetles)	Rhynchitidae (Weevils)	Tatianaerhynchites aequatus	1	2	Universal	Commonly found. Feeds on hawthorn.			
150 COLEOPTERA (Beetles)	Scaphitidae	Anaspis frontalis	0	1	Universal	on a variety of flowers	Least Concern		
150 COLEOPTERA (Beetles)	Scaphitidae	Anaspis maculata	1	2	Universal	Commonly found, on a variety of flowers. Possibly breeds in dead wood.	Least Concern		
150 COLEOPTERA (Beetles)	Staphylinidae (Rove Beetles)	Anotylus sculpturatus	0	1	Southern Widespread	Very commonly found, amongst litter on the ground.			
150 COLEOPTERA (Beetles)	Staphylinidae (Rove Beetles)	Drusilla canaliculata	1	2	Southern Widespread	Commonly found, in dry grassland habitats			
150 COLEOPTERA (Beetles)	Staphylinidae (Rove Beetles)	Metoposia chypeata	1	2	Universal	Commonly found. In moss and ground litter. Life history unknown.			
150 COLEOPTERA (Beetles)	Staphylinidae (Rove Beetles)	Micropeplus fulvus	1	2	Universal	Frequently found. In decaying vegetable matter.			
150 COLEOPTERA (Beetles)	Staphylinidae (Rove Beetles)	Nargus velox	1	2	Universal	Frequently found. In small marginal runs and vegetation litter.			
150 COLEOPTERA (Beetles)	Staphylinidae (Rove Beetles)	Queilus curtigenis	1	2	Universal	Frequently found. No other information available.			
150 COLEOPTERA (Beetles)	Staphylinidae (Rove Beetles)	Stenus aceris	1	2	Southern Widespread	Commonly found, but scarier in the north. At roots of grass and in moss in both grassland and woodland habitats, chiefly in lowland situations.			
150 COLEOPTERA (Beetles)	Staphylinidae (Rove Beetles)	Tachyporus pusillus	0	1	Universal	Frequently found. In vegetation litter.			
150 COLEOPTERA (Beetles)	Staphylinidae (Rove Beetles)	Xantholinus linearis	0	1	Universal	Commonly found. Associated with open, sparsely-vegetated areas.			
150 COLEOPTERA (Beetles)	Staphylinidae (Rove Beetles)	Xantholinus longiventris	1	2	Universal	Frequently found.			
150 COLEOPTERA (Beetles)	Tenebrionidae	Göndera luperus	1	2	Universal	Locally frequently found. Adults are found on flowers and larvae develop in dead twigs or branches.	Least Concern	NS	
150 COLEOPTERA (Beetles)	Tenebrionidae	Lagria hirta	1	2	Universal	Commonly found. Associated with hedgerows and scrub.	Least Concern		
150 COLEOPTERA (Beetles)	Throscidae	Trixagus dermestoides	0	1	Universal	Data not available			
160 DIPTERA (Flies)	Asilidae (Robberflies)	Dioctria baumhaueri	0	1	Southern Widespread	Commonly found. Dry, grassy areas and heaths at the edge of woodland.	Least Concern		
160 DIPTERA (Flies)	Asilidae (Robberflies)	Dioctria linearis	0	1	Southern Restricted	Frequently found. Open woodland. The larvae are predatory in the soil.	Least Concern		
160 DIPTERA (Flies)	Asilidae (Robberflies)	Leptarthrus brevisrostris	1	2	Universal	Frequently found. Usually associated with chalk grassland in southern England; woodland on base-rich soils elsewhere.	Least Concern		

160 DIPTERA (Flies)	Asilidae (Robberflies)	Leptogaster cylindrica	0	1	Least Concern	Southern Widespread.	Frequently found in long grass. The adult is an active predator of flying insects, the larvae are soil-dwelling predators.	Least Concern
160 DIPTERA (Flies)	Bibionidae (St Mark's Flies)	Dilophus humeralis	1	2		Southern Restricted	Frequently found. The larvae feed in grassland.	
160 DIPTERA (Flies)	Bombyliidae (Beeflies)	Bombylius major	1	2	Least Concern	Southern Widespread	Commonly found. A cleptoparasite of a variety of springtime ground-nesting solitary bees.	Least Concern
160 DIPTERA (Flies)	Cecidiomyiidae	Craneiohia corni	1	2		Universal	Commonly found. Makes galls on the leaves of Dogwood.	
160 DIPTERA (Flies)	Cecidiomyiidae	Jaapiella veronicae	1	2		Universal	Commonly found. Larvae gall Germander Speedwell.	
160 DIPTERA (Flies)	Conopidae (Thick-headed Flies)	Sicus ferrugineus	1	2		Universal	Commonly found. A parasite of bumble bee workers.	
160 DIPTERA (Flies)	Conopidae (Thick-headed Flies)	Thecophora atra	1	2		Southern Widespread	Frequently found. Easily overlooked. It is most often swept from around the burrows of solitary bees of the genera Halictus and Lasiglossum, which are its hosts.	
160 DIPTERA (Flies)	Conopidae (Thick-headed Flies)	Thecophora fulvipes	1	2	Nationally Scarce	Southern Widespread	Rarely found. Easily overlooked. It is most often swept from around the burrows of solitary bees of the genera Halictus and Lasiglossum, which are its hosts.	Nationally Scarce
160 DIPTERA (Flies)	Empididae (Dance Flies)	Empis tessellata	1	2		Universal	Commonly found. Both adults and larvae are predatory.	
160 DIPTERA (Flies)	Limoniidae (Craneflies)	Austrolimnophila ochracea	1	2		Universal	Commonly found. A woodland species. Breeds in dead wood.	
160 DIPTERA (Flies)	Limoniidae (Craneflies)	Dicranomyia lutea	1	2		Unknown	A newly recognised species. Biology unknown.	
160 DIPTERA (Flies)	Limoniidae (Craneflies)	Limonia nubeculosa	1	2		Universal	Commonly found. Damp woodlands. The larvae feed in dead wood.	
160 DIPTERA (Flies)	Limoniidae (Craneflies)	Limonia phragmitidis	1	2		Universal	Commonly found. Woodland.	
160 DIPTERA (Flies)	Sciomyzidae (Snail-killing Flies)	Coremacera marginata	1	2		Universal	Frequently found. Associated with dry habitats. The larvae prey on terrestrial snails.	
160 DIPTERA (Flies)	Sciomyzidae (Snail-killing Flies)	Limnia unguicornis	1	2		Universal	Commonly found in both wet and dry grassland.	
160 DIPTERA (Flies)	Sciomyzidae (Snail-killing Flies)	Pherbellia cinerella	1	2		Universal	Commonly found in grassland.	
160 DIPTERA (Flies)	Stratiomyidae (Soldierflies)	Beris chalybata	1	2	Least Concern	Universal	Commonly found.	Least Concern
160 DIPTERA (Flies)	Stratiomyidae (Soldierflies)	Chloromyia formosa	0	1	Least Concern	Universal	Commonly found. Breeds in rotting vegetation.	Least Concern
160 DIPTERA (Flies)	Stratiomyidae (Soldierflies)	Chorisops nagatomii	1	2	Least Concern	Southern Widespread.	Infrequently found in woodland rides and scrub-edge.	Least Concern
160 DIPTERA (Flies)	Stratiomyidae (Soldierflies)	Pachygaster atra	0	1	Least Concern	Southern Widespread.	Frequently found. The larvae develop in rotting vegetation.	Least Concern
160 DIPTERA (Flies)	Stratiomyidae (Soldierflies)	Pachygaster leachii	1	2	Least Concern	Southern Restricted	Frequently found. The larvae develop in rotting vegetation and	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Baccha elongata	0	1	Least Concern	Universal	Commonly found. A fly of shady places.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Brachyopa scutellaris	1	2	Least Concern	Southern Widespread.	Infrequently found. The larvae live in sap runs near the bases of a variety of trees.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Cheilosia impressa	0	1	Least Concern	Universal	Frequently found. Damp woodlands.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Cheilosia soror	1	2	Nationally Scarce	Southern Restricted	Infrequently found. Strongly associated with chalk and limestone areas. Thought to breed in truffles and possibly other underground fungi.	Nationally Scarce
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Chrysotoxum bicinctum	0	1	Least Concern	Universal	Frequently found. Dry grasslands and heaths, often near scrub. Probably feeds on aphids on roots. There may also be an association with ants.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Chrysotoxum cautum	0	1	Least Concern	Southern Restricted	Frequently found. Grasslands at the margins of woodland or scrub. Probably feeds on aphids on roots. There may also be an association with ants.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Epistrophe elegans	1	2	Least Concern	Southern Widespread	Commonly found. The larvae prey on aphids on trees.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Episyphus balteatus	1	2	Least Concern	Universal	Very commonly found everywhere. A migratory species.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Eristalis arbustorum	1	2	Least Concern	Universal	Very commonly found. The larvae live in organically rich wet mud.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Eristalis intricarius	1	2	Least Concern	Universal	Commonly found. Often in woodland clearings.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Eristalis pertinax	1	2	Least Concern	Universal	Very commonly found. The larvae live in organically rich wet mud.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Eristalis tenax	1	2	Least Concern	Universal	Very commonly found. The larvae live in organically rich wet mud.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Eumerus funeralis	1	2	Least Concern	Universal.	Commonly found. The larvae mine bulbs and fleshy roots.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Eupeodes corollae	0	1	Least Concern	Universal	Very commonly found everywhere. The larvae feed on aphids. A migratory species.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Eupeodes luniger	1	2	Least Concern	Universal	Commonly found. The larvae prey on aphids on conifers.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Eupeodes nielsenii	1	2	Nationally scarce	Disjunct, Northern and Southern Restricted.	Infrequently found. Associated with pine woodland. The larvae feed on pine aphids. Possibly spreading into areas of pine plantation in the south of the UK.	Nationally scarce
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Ferdinandea cuprea	0	1	Least Concern	Universal	Infrequently found. The larvae live on sap runs on deciduous trees.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Helophilus pendulus	1	2	Least Concern	Universal	Very commonly found. The larvae live in organically rich wet mud.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Helophilus trivittatus	0	1	Least Concern	Universal	Infrequently found. Most often associated with grazing marshes and coastal meadows. Increased in distribution and found over many more habitat types recently.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Melangyna umbellatarum	0	1	Least Concern	Universal	Infrequently found. Associated with woodland. The larvae prey on aphids, particularly those found on umbellifers.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Melanostoma mellinum	1	2	Least Concern	Universal	Very commonly found. A grassland species.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Melanostoma scalare	1	2	Least Concern	Universal	Very commonly found. A grassland species.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Merodon equestris	0	1	Least Concern	Universal	Commonly found. The larvae mine bulbs.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Myathropa florea	1	2	Least Concern	Universal	Commonly found. The larvae live in wet, decaying leaves.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Paragus haemorrhous	1	2	Least Concern	Universal	Commonly found. Associated with patches of bare ground in short grassland.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Pipizella viduata	1	2	Least Concern	Universal	Commonly found. A species of dry grassland. The larvae feed on aphids on umbellifer roots.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Platycheirus albimanus	1	2	Least Concern	Universal	Commonly found. The larvae are predatory.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Platycheirus angustatus	1	2	Least Concern	Universal	Commonly found. The larvae are predatory.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Sphaerophoria fatarum	1	2	Least Concern	Universal	Infrequently found. A northern species which is largely restricted to heathlands in southern England.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Sphaerophoria scripta	1	2	Least Concern	Universal	Very commonly found in the southern half of the British Isles. A grassland species, the larvae feed on aphids and Homoptera living in the ground layer.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Sphaerophoria taeniata	1	2	Least Concern	Universal	Frequently found. Associated with wet meadows.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Syrirta pipiens	1	2	Least Concern	Universal	Very commonly found in most places throughout Britain. The larvae live in decaying vegetation.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Syrphus ribesii	1	2	Least Concern	Universal	Very commonly found. A migratory species. The larvae feed on aphids.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Syrphus vitripennis	1	2	Least Concern	Universal	Commonly found. Woodland edges. The larvae feed on aphids. 2 species formerly recorded under this name.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Volucella bombylans	1	2	Least Concern	Universal	Commonly found. The larvae live in bumble bee nests.	Least Concern
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Volucella inanis	1	2	Nationally Scarce	Southern Restricted	Infrequently found. The larvae live as ectoparasites of the grubs of social wasps. Becoming more frequently recorded in the past ten years.	Nationally Scarce
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Volucella zonaria	1	2	Nationally Scarce	Southern Restricted	Frequently found, but very localised to warm areas. The larvae live in the nests of social wasps.	Nationally Scarce
160 DIPTERA (Flies)	Syrphidae (Hoverflies)	Xanthogramma pedissequum	1	2	Least Concern	Southern Widespread	Frequently found on dry grasslands. There is an association with Lasius ant nests.	Least Concern
160 DIPTERA (Flies)	Tachinidae (Parasite Flies)	Cistogaster globosa	1	2	RDB 1	Southern Restricted	Locally frequent, becoming more so. Dry grassland with bare ground. Parasitic on Bishops Mitre Bug.	RDB 1
160 DIPTERA (Flies)	Tachinidae (Parasite Flies)	Eriothrix rufomaculata	1	2		Universal	Commonly found. In grassland habitats.	
160 DIPTERA (Flies)	Tachinidae (Parasite Flies)	Gymnosoma nitens	1	2	RDB 1	Southern Restricted	Infrequently found, and very local. In common with many other tachid flies associated with Hemiptera this species has become more widespread in the recent past. It is now a frequent component of the fauna of Thames corridor gravel terrace sites. Parasitises Sciocoris curtisians and possibly other shield-bugs.	RDB 1
160 DIPTERA (Flies)	Tachinidae (Parasite Flies)	Gymnosoma rotundatum	0	1	RDB 3	Southern Restricted	Locally frequently found. On flowers in grassland and woodland. Increased in abundance and range greatly in past 10 years. Parasitises shield-bugs.	RDB 3
160 DIPTERA (Flies)	Tachinidae (Parasite Flies)	Loewia phaeoptera	1	2		Southern Restricted	Host unknown.	
160 DIPTERA (Flies)	Tephritidae	Oreia falcata	1	2		Southern Widespread	Infrequently found. Larvae in stem and roots of Goatsbeard, Tragopogon pratensis.	
160 DIPTERA (Flies)	Tephritidae (Picture-wing Flies)	Anomoia purmunda	1	2		Southern Widespread	Commonly found. The larvae feed in the fruits of Rosaceous trees and shrubs	
160 DIPTERA (Flies)	Tephritidae (Picture-wing Flies)	Merzomyia westermanni	1	2	Nationally scarce	Southern Restricted	Frequently found. Local in south-east England but perhaps more frequent than originally thought. The larvae develop in the flower-heads of ragwort Senecio species.	Nationally scarce
160 DIPTERA (Flies)	Tephritidae (Picture-wing Flies)	Urophora cardui	0	1		Southern Restricted	Commonly found, on Creeping Thistles Cirsium vulgare	
160 DIPTERA (Flies)	Tipulidae (Craneflies)	Neprotoma flavescens	1	2		Universal	Commonly found. A species of dry grasslands.	
160 DIPTERA (Flies)	Tipulidae (Craneflies)	Tipula oleracea	1	2		Universal	Commonly found. Associated with pastures on wet soils.	
160 DIPTERA (Flies)	Tipulidae (Craneflies)	Tipula paludosa	1	2		Universal	Very commonly found. A pasture pest species.	
160 DIPTERA (Flies)	Tipulidae (Craneflies)	Tipula pseudovaripennis	1	2	Nationally Scarce	Universal	Rarely found. Usually associated with woodlands on chalk, although there are some confirmed records from sandy soils. Unconfirmed in Scotland.	Nationally Scarce
160 DIPTERA (Flies)	Tipulidae (Craneflies)	Tipula vernalis	1	2		Universal	Commonly found. A species of herb-rich grasslands in open situations.	
170 HYMENOPTERA SYMPHYTA (Sawflies)	Tenthredinidae	Macrophya annulata	1	2		Universal	Commonly found. The larvae feed on creeping cinquefoil.	
180 HYMENOPTERA PARASITICA (Ichneumon Wasps and allies)	Cynipidae (Gall Wasps)	Diplolepis rosae	1	2		Universal	Commonly found. The female lays an egg in the buds of Rose, which induces the formation of a pin-cushion gall.	
180 HYMENOPTERA PARASITICA (Ichneumon Wasps and allies)	Gasteruptionidae (Parasitic Wasps)	Gasteruption jaculator	1	2		Southern Restricted	Commonly found. A clepto-parasite of stem-nesting bees.	
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Andreninae (Mining Bees)	Andrena cineraria	1	2		Universal	frequently found. It makes large colonies. Polylectic. Ground nesting.	

190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Andreninae (Mining Bees)	ANDRENA clarkella	1	2	Universal	Commonly found. Early spring woodland species. Oligolectic on Salix spp. Ground nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Andreninae (Mining Bees)	Andrena dorsata	1	2	Southern Widespread	Commonly found. Often the dominant species in southern Britain. Polylectic. Ground nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Andreninae (Mining Bees)	Andrena flavipes	1	2	Southern Restricted.	Commonly found. Forms very large colonies, especially in bare ground. Polylectic. Ground nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Andreninae (Mining Bees)	ANDRENA florea	1	2 RDB 3	Southern Restricted	Frequently found. Oligolectic, utilises White Bryony, Bryonia cretica, as its sole pollen source. Most often associated with sandy soils, nests in hard ground such as on tracks. Ground nesting.		RDB 3
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Andreninae (Mining Bees)	ANDRENA fulva	1	2	Southern Widespread.	Locally commonly found, often in woodlands and gardens. Polylectic. Ground nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Andreninae (Mining Bees)	Andrena gravida	1	2 RDB 1 a UK-BAP species	Southern Restricted	Rarely found, although it is known to form small nesting aggregations in mainland Europe. Polylectic.		RDB 1 a UK-BAP species
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Andreninae (Mining Bees)	Andrena haemorrhoa	1	2	Universal	Commonly found. Females nest singly but males often congregate on blackthorn and hawthorn blossoms. Polylectic. Ground nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Andreninae (Mining Bees)	Andrena minutula	1	2	Universal	Commonly found. Polylectic. Ground nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Andreninae (Mining Bees)	Andrena nigroaenea	1	2	Universal.	Commonly found. Polylectic. Ground nesting. Ground nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Andreninae (Mining Bees)	Andrena nitida	1	2	Southern Widespread	Commonly found. A species of meadows. Polylectic. Ground nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Andreninae (Mining Bees)	Andrena niveata	0	1 RDB 2	Southern Restricted	Rarely found. Oligolectic on Brassicaceae. Ground nesting.		RDB 2
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Andreninae (Mining Bees)	Andrena proxima	1	2 RDB 3	Southern Widespread	locally frequently found, a species of old meadows and cliff grasslands. Oligolectic on Apiaceae. Ground nesting.		RDB 3
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Andreninae (Mining Bees)	Andrena scotica	1	2	Universal	Commonly found. Several females may share a common burrow entrance. Polylectic. Ground nesting.		Y
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Andreninae (Mining Bees)	ANDRENA semilaevis	1	2	Universal	Commonly found. Polylectic, although with an apparent preference for Apiaceae. Ground nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Andreninae (Mining Bees)	ANDRENA synadelpha	1	2	Southern Restricted	Infrequently found. Associated with open woodlands and woodland edges. Local. Polylectic. Ground nesting.		Y
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Apinae (Bees)	Anthophora plumipes	1	2	Southern Widespread	Commonly found. Nests in the ground or cliffs and walls. Ground nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Apinae (Bees)	BOMBUS hortorum	1	2	Universal	Very commonly found. Polylectic. Nests underground. Cavity nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Apinae (Bees)	Bombus hyporum	1	2	Southern Widespread	Commonly found. Recent colonist, first recorded in 2001 near Southampton, Now spreading rapidly. Strongly associated with gardens and woodland. Often nests in aerial cavities, including bird boxes. Polylectic. Cavity nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Apinae (Bees)	Bombus lapidarius	1	2	Universal	Very commonly found. Nests underground in cavities. Polylectic.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Apinae (Bees)	Bombus pascuorum	1	2	Universal	Very commonly found. Polylectic. Nests in surface litter. Cavity nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Apinae (Bees)	BOMBUS pratorum	1	2	Universal	Very commonly found. Polylectic. Nests underground as well as in aerial cavities, including bird boxes. Cavity nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Apinae (Bees)	Bombus terrestris	1	2	Universal	Very commonly found. Polylectic. Nests underground. Cavity nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Apinae (Bees)	Bombus vestalis	1	2	Southern Widespread	Commonly found. Breeds in nests of B. terrestris. Cavity nesting. Cuckoo species.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Apinae (Bees)	Nomada flava	0	1	Southern Widespread	Commonly found. Parasitises several Andrena species. Ground nesting. Cuckoo species.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Apinae (Bees)	Nomada flavoguttata	1	2	Universal	Commonly found. Parasitises several Andrena species. Ground nesting. Cuckoo species.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Apinae (Bees)	Nomada flavopicta	1	2 Nationally Scarce b	Southern Widespread	Infrequently found. A cleptoparasite of Mellitta bees. Ground nesting. Cuckoo species.		Nationally Scarce b
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Apinae (Bees)	NOMADA fucata	1	2 Nationally Scarce a	Southern Restricted.	Frequently found. Becoming much more widespread recently. The host of this species, Andrena flavipes, has always been more widespread than the Nomada. Ground nesting. Cuckoo species.		Nationally Scarce a
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Apinae (Bees)	Nomada goodeniana	1	2	Universal	Commonly found. Parasitises several Andrena species. Ground nesting. Cuckoo species.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Apinae (Bees)	NOMADA lathburiana	1	2 RDB 3	Southern Widespread	This species has had a marked resurgence and is now frequently found with large aggregations of its host, Andrena cinerea. Ground nesting. Cuckoo species.		RDB 3
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Chrysididae (Cuckoo Wasps)	CHRYSIS schencki	1	2 Nationally Scarce	Southern Restricted	Cleptoparasite of Eumenid wasps.		Nationally Scarce
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Chrysididae (Cuckoo Wasps)	OMALUS puncticollis	1	2 Nationally Scarce a	Southern Restricted	Infrequently found. A cleptoparasite of wood-nesting aculeate wasps.		Nationally Scarce a
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Chrysididae (Cuckoo Wasps)	TRICHRYSIS cyanea	1	2	Universal.	Commonly seen on dead wood and bare banks in the sun. A cleptoparasite of several species of small wasps.		Y
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Colletinae (Bees)	Colletes hederiae	1	2 pRDB 3	Southern Restricted	Very commonly found visiting Ivy. Only recognised on the mainland of the UK in 2000. Known on the Channel Islands for much longer. Conservation status no longer justified. Ground nesting.		pRDB 3
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Colletinae (Bees)	HYLAEUS brevicornis	1	2	Southern Widespread	Commonly found. Polylectic. Cavity nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Colletinae (Bees)	HYLAEUS communis	1	2	Southern Widespread	Commonly found. Polylectic. Cavity nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Colletinae (Bees)	Hylaeus confusus	0	1	Universal	Commonly found. Polylectic. Cavity nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Colletinae (Bees)	HYLAEUS dilatatus	0	1	Southern Restricted.	Locally frequently found. Nests in dead Bramble stems. Polylectic. Cavity nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Crabronidae (Solitary Wasps)	Cerceris rybyensis	1	2	Southern Restricted.	Locally commonly found. Heathland and downland. Preys on various solitary bees. Ground nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Crabronidae (Solitary Wasps)	ECTEMNIUS dives	0	1 Nationally Scarce b	Southern Widespread	Local and infrequently found. This species has been increasing its range and frequency over the past twenty years. Dead wood nesting. Hunts flies.		Nationally Scarce b
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Crabronidae (Solitary Wasps)	ECTEMNIUS rubicola	1	2	Southern Restricted.	Infrequently found. Nests in dead bramble stems. Hunts flies.		Y
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Crabronidae (Solitary Wasps)	ENTOMOGNATHUS brevis	1	2	Southern Widespread	Commonly found in sandy places. Preys on small leaf-beetles (Chrysomellidae). Ground nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Crabronidae (Solitary Wasps)	PASSALOECUS singularis	1	2	Universal.	Commonly found. Preys on aphids. Nests in cut stems and small beetle burrows in dead wood.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Crabronidae (Solitary Wasps)	PEMPHREDON lethifer	1	2	Southern Widespread	Commonly found. Preys on aphids. Nests in the soft pith of dead stems, such as bramble. The main chamber is helical down the stem, with side chambers dropping off this.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Crabronidae (Solitary Wasps)	PEMPHREDON lugubris	1	2	Universal.	Commonly found. Preys on large aphids. Nests in dead wood, especially as this becomes dry and powdery.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Crabronidae (Solitary Wasps)	PSENLUS pallipes	0	1	Southern Widespread	Infrequently found. Associated with woodland and hedgerows. Preys on aphids and nests in dead wood.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Crabronidae (Solitary Wasps)	TRYPXOYLON clavicerum	1	2	Southern Widespread	Commonly found. Preys on small spiders. Stem nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Formicidae (Ants)	Formica cunicularia	1	2	Southern Restricted.	Locally commonly found. Southern heathland, downland and coastal localities.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Formicidae (Ants)	FORMICA fusca	1	2	Universal	Commonly found in many habitats, although largely replaced by F. lemni towards the north.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Formicidae (Ants)	LASIUS flavus	1	2	Universal.	Commonly found. The large, dome-shaped nests are an indicator of long-established pasture.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Formicidae (Ants)	LASIUS mixtus	0	1	Universal	Rarely found, workers are almost totally subterranean. A socially parasitic species which takes over other Lasius species.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Formicidae (Ants)	Lasius niger	1	2	Universal	Very commonly found. Dry habitats.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Formicidae (Ants)	MYRMECINA graminicola	1	2	Southern Restricted	Infrequently found. Often in the nests of other ant species, usually Lasius alienus and L. flavus.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Formicidae (Ants)	MYRMICA ruginodis	1	2	Universal	Commonly found in many habitats.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Formicidae (Ants)	MYRMICA sabuleti	1	2	Universal	Locally commonly found. Short turf and bare ground.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Formicidae (Ants)	MYRMICA scabrinodis	1	2	Universal	Commonly found in a variety of open habitats.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Formicidae (Ants)	MYRMICA schencki	1	2 Nationally Scarce b	Southern Restricted	Rarely found, workers forage singly. Associated with warm, dry, short turf, but has been found in peaty areas in Ireland.		Nationally Scarce b
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Formicidae (Ants)	MYRMICA specioides	1	2 RDB 3	Southern Restricted	Infrequently found. Associated with sparsely vegetated soils, often shingle or gravel. Increasing range during the 2000's.		RDB 3
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Formicidae (Ants)	PONERA coarctata	0	1 Nationally Scarce b	Southern Restricted	Rarely found. Largely associated with coastal areas with warmth. Subterranean.		Nationally Scarce b
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Formicidae (Ants)	STENAMMA debile	1	2	Southern Widespread	Rarely found. A recently recognised species, close to S. westwoodii. Associated with shady locations, nests under stones or logs.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Formicidae (Ants)	TEMNOTHORAX nylander	1	2	Southern Restricted	Infrequently found and local. Nests in dead wood.		

190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Halicitinae (Mining Bees)	HALICTUS rubicundus	1	2	Universal	Commonly found. A eusocial species. Ground nesting. Polylectic.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Halicitinae (Mining Bees)	HALICTUS tumulorum	1	2	Universal	Commonly found. A eusocial species. Polylectic. Ground nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Halicitinae (Mining Bees)	LASIOGLOSSUM calceatum	1	2	Universal	Commonly found. A eusocial species. Polylectic. Ground nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Halicitinae (Mining Bees)	LASIOGLOSSUM fulvicorne	1	2	Southern Widespread	Locally commonly found on more alkaline soils. Polylectic. Ground nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Halicitinae (Mining Bees)	LASIOGLOSSUM lativentre	1	2	Southern Widespread	Frequently found, especially on heathlands. Polylectic. Ground nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Halicitinae (Mining Bees)	LASIOGLOSSUM leucozonium	1	2	Southern Widespread	Commonly found in a variety of habitats. Polylectic. Ground nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Halicitinae (Mining Bees)	LASIOGLOSSUM malachurum	1	2	Nationally Scarce a	Commonly found. Eusocial species which forms large colonies. Formerly, a largely coastal species. Increased its range during the 1990s, does not merit Nationally Scarce status now. Polylectic. Ground nesting.		Nationally Scarce a
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Halicitinae (Mining Bees)	LASIOGLOSSUM morio	0	1	Southern Widespread	Commonly found. Polylectic. Ground nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Halicitinae (Mining Bees)	LASIOGLOSSUM parvulum	1	2	Southern Widespread	Commonly found in a variety of habitats. Polylectic.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Halicitinae (Mining Bees)	LASIOGLOSSUM pauxillum	1	2	Nationally Scarce a	Commonly found. Polylectic and eusocial. Became much commoner during the 1990s, does not merit Nationally Scarce status now. Ground nesting.		Nationally Scarce a
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Halicitinae (Mining Bees)	SPHECODES miniatus	1	2	Nationally Scarce b	Infrequently found. A heathland bee associated with very dry, light sandy habitats. Cleptoparasitic on Lasioslossum sp..		Nationally Scarce b
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Halicitinae (Mining Bees)	Sphcodes monilicornis	1	2	Universal.	Commonly found. Cleptoparasitic on Lasioslossum and Halictus sp.. Ground nesting. Cuckoo species.	Y	Y
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Halicitinae (Mining Bees)	Sphcodes niger	1	2	RDB 3	Frequently found. A cleptoparasitic species. Its probable host, Lasioslossum morio, is a very common and widely distributed bee.		RDB 3
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Megachilinae (Leafcutter and Mason Bees)	CHELOSTOMA campanularum	1	2	Southern Widespread.	Commonly found. Mainly associated with the flowers of Campanula spp. but may also utilise those of other, unrelated genera as pollen sources. Cavity nesting in dead wood, using old beetle burrows.		Y
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Megachilinae (Leafcutter and Mason Bees)	COELOXYIS inermis	0	1	Southern Widespread	Infrequently found. Cleptoparasite of Megachile spp.. Cavity nesting. Cuckoo species.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Megachilinae (Leafcutter and Mason Bees)	HERIADES truncorum	1	2	RDB 3	Locally frequently found. This species was previously thought to be dependent upon pine resin for building its nests, this is now known to be untrue as it has been found in areas with no pine, where it must be using other resins. Oligolectic on Asteracea. Cavity nesting in old beetle burrows. Recent marked increase in range and frequency.		RDB 3
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Megachilinae (Leafcutter and Mason Bees)	MEGACHILE ligniseca	1	2	Southern Widespread	Infrequently found. Cavity nesting. Polylectic.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Megachilinae (Leafcutter and Mason Bees)	MEGACHILE versicolor	0	1	Universal	Commonly found. One of the leafcutter bees from the way it lines its nest chamber with sections of cut leaf. Any leaf will do, provided that it is supple. The sides are made from oval pieces, the ends from round ones. Cavity nesting. Polylectic.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Megachilinae (Leafcutter and Mason Bees)	OSMIA caerulescens	0	1	Southern Widespread	Locally commonly found. Cavity nesting. Polylectic.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Megachilinae (Leafcutter and Mason Bees)	OSMIA leaiana	1	2	Southern Widespread	Frequently found, with a great increase post 1990. Oligolectic on Asteracea. Cavity nesting		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Megachilinae (Leafcutter and Mason Bees)	OSMIA spinulosa	1	2	Southern Restricted	Locally frequently found on southern calcareous grasslands. Cavity nesting. In snail-shells. Oligolectic on Asteraceae. Formerly known as Hoplitis spinulosa.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Melittinae (Bees)	Melitta leporina	1	2	Nationally Scarce b	Infrequently found. Associated with legumes, especially White Clover, Trifolium repens. Ground nesting.		Nationally Scarce b
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Melittinae (Bees)	Melitta tricincta	1	2	Nationally Scarce b	Locally commonly found. Oligolectic. Very strongly associated with Red Bartsia, Odontites verna, which provides the pollen with which the female stocks her nest. Ground nesting.		Nationally Scarce b
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Tiphidae (Solitary Wasps)	TIPHIA femorata	1	2	Southern Restricted.	Locally commonly found. Sandy places. Parasitises larvae of scarabaeid beetles.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Vespidae (Social and Potter Wasps)	ANCISTROCERUS gazella	1	2	Southern Widespread	Commonly found. Nests in a variety of cavities. Provisions its nest with small caterpillars.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Vespidae (Social and Potter Wasps)	VESPULA germanica	1	2	Universal	Very commonly found. Underground and cavity nesting.		
190 ACULEATE HYMENOPTERA (Ants, Bees and Wasps)	Vespidae (Social and Potter Wasps)	Vespula vulgaris	1	2	Universal	Very commonly found. Underground and cavity nesting.		

Appendix 2

Conservation Status Categories, Distribution and Abundance Terms for Insects

Conservation Status categories

GB Conservation Status categories are in the process of being upgraded. This means that it is currently necessary to provide values for both systems as not all groups have been dealt with.

The old RDB (Red Data Book) Conservation Status categories were based purely on the number of 10km squares which a species was known to have been recorded from, with a base-line date of 1970. These categories are obviously susceptible to the progressive accumulation of new records over time. This is especially so as, for some species in particular, non-specialist recording has increased significantly. There are also known changes in range and abundance which have been increasingly commented on by specialists.

The old system graded species like this:

RDB 1. Endangered. Species currently (post 1970) known to exist in five or fewer ten-kilometre squares.

RDB 2. Vulnerable. Species in severely declining or vulnerable habitats, or of low known populations. Known to exist (post 1970) in ten, or fewer, ten-kilometre squares.

RDB 3. Rare. Species with small populations, not at present Endangered or Vulnerable, but which are felt to be at risk. Species currently known to exist (post 1970) in fifteen, or fewer, ten-kilometre squares.

RDB K. Species of undoubted RDB rank, but with insufficient information for accurate placement; includes possible recent arrivals.

Nationally Scarce. Species currently (post 1970) known to exist in one hundred, or fewer, ten-kilometre squares.

In some groups these are further sub-divided into:-

Nationally Scarce a. Species currently (post 1970) known to exist in thirty, or fewer, ten-kilometre squares.

Nationally Scarce b. Species currently (post 1970) known to exist in thirty-one to one hundred ten-kilometre squares.

The new IUCN-type Red Data Book Conservation Status categories are based on perceived threat, of which distribution is only one part, the other being related to the population trend over the 10 years previous to the assessment, for the species in question. Such trends may be inferred from accumulated specialist knowledge, but, as the quantity and quality of data improves increasing effort is being made to model such changes. The output of such modelling being then compared with the specialist knowledge. Species with a negative trend may not be inherently rare, it is the decline which is the significant factor.

The new system grades species like this (This is very much a summary, there is considerable detail to this, please consult the group-appropriate published Great Britain Red List for a better understanding of how the gradings have been arrived at):

Regionally Extinct (RE). See group-appropriate Red List for criteria. In general, a sufficiently long time has elapsed since the last record of this species.

Critically Endangered (CE). Species with a very severe decline in population trend or geographic range within the area considered.

Endangered (E). Species with a severe decline in population trend or geographic range within the area considered.

Vulnerable (V). Species with a marked decline in trend or geographic range within the area considered.

Near Threatened (NT). Species which are suspected to qualify for Vulnerable, but where the data does not quite support such a category.

Least Concern (LC). Species which show no marked negative population trend or geographic range. Indeed they may have positive values for either or both.

There will be a number of species where it has been considered that there is insufficient information to provide a

supported grading, such species are called **Data Deficient (DD)**. There are also categories for invasive (with anthropogenic agency) species, which are usually assessed as **Not Applicable (NA)**.

The IUCN Red List system was primarily developed for assessing large mammal populations and fish stocks, adapting it for invertebrates is, inevitably, an experimental process and it is to be expected that there will be variability in its application and interpretation between groups. However, each published GB Red List has information on the actual way in which decisions have been arrived at. These should be consulted where necessary.

There is no inherent equivalence between the old and new systems

Great Britain has a considerable environmental gradient from north to south and, to a lesser extent, east to west. Species which are stable in their trend or geographic extent may still be considerably limited by the availability of suitable habitat resources. In order that such species do not get missed from conservation considerations a second, parallel, system of **GB scarcity** has been developed. This is similar to the old Conservation Status system in that it is based on the number of 10km squares which the species is known from, in a given time period, usually 30 years previous to the date of the assessment.

Categories for this **National Scarcity** rating are :

NR, with 1-15 10Km occupied squares

NS, with 16 to 100 10Km occupied squares.

Clearly both systems will require periodic revision if they are to remain relevant to the needs of a modern country and the conservation of its fauna.

Distribution categories

Distribution refers solely to the geographical extent of a species in the British Isles. Considerable confusion has been caused in the past by the varying meanings given to many assessments of species where geographic distribution has been confused with local abundance.

A distribution classification, based on the known distribution range, is used here. Where possible a provisional national distribution range status under this system is given, based on published distribution maps, updated where necessary by specialist information. The basic system has been to divide the British Isles into thirds, largely ignoring the influence of altitude. The lines delineating these thirds run approximately:

- i). Along a line from the Wash to the Severn and including South Wales.
- ii) Along a line running through the Scottish Borders.

Universal. Distributed throughout England and Wales, with at least some extension into central and northern Scotland.

Widespread. Distributed in about three-quarters of England and Wales, perhaps with a few records in southern Scotland, but not significantly found in the northern third (Southern Widespread) or southern third (Northern Widespread) of the British Isles. (NB Northern Widespread species are found in Scotland as well.)

Restricted. Distributed in the southern (Southern Restricted) or northern (Northern Restricted) third of the British Isles only.

Abundance Comments (in Notes)

These often form the first part of the 'Notes' in the species information. An attempt has been made to make something akin to the well-established DAFOR system for botanical abundance recording, but with just four categories. These rate the expectation of finding the species, if all its life-cycle resource requirements and temperature and humidity regimes are apparently met on a site.

- i) Commonly found. An experienced observer would expect to find the species 90% or more of the time where all

its requirements are met.

ii) Frequently found. An experienced observer would expect to find the species 60% or more of the time where all its requirements are met.

iii) Infrequently found. An experienced observer would expect to find the species 10% or more of the time where all its requirements are met.

iv) Rarely found. An experienced observer would expect to find the species less than 10% of the time where all its requirements are met.

These may be modified by a comment as to the degree of restriction to localities, even within its known range and when its requirements are met, often something like Locally frequently found.

Abundance comments are much more subjective than distribution comments, being dependent upon the precise timing of survey visits and the timing of emergence of the insect species, as well as the experience of the observer. The method of recording, e.g. by sight or hand-netting, sweeping, beating, malaise trap, pan trap, may also affect the observed abundance. It is assumed that recording takes place under favourable conditions of habitat, weather and season. Often a species appears to be rarely found, until the particular way of looking for it is discovered, when it proves to be much more prevalent than previously thought.

Some species, however, seem to exist in low numbers at all times in all suitable places. This may reflect the species' position in its particular ecological pyramid. The abundance may have no connection with the conservation status; some species are numerous in their particular locations: others may only ever be found as singletons. Comments under this heading rely heavily upon the observer's accumulated experience as the rating given is a measure of the expectation of finding the species in a suitable habitat. Species living towards the edge of their range are often less frequent than they are in the middle of their range.

Specialist Terms for Ants, Bees and Wasps

Cleptoparasitic: A species taking over the stored provisions of another species to feed its young. This usually involves the cleptoparasite laying an egg in the nest of the host, but may involve oviposition on prey being transported by the host.

Socially Parasitic: The queens of some social aculeates do not initiate their own nests from scratch, but take over established nests of other species. Sometimes this results in the gradual replacement of the workers of one species by another. In other cases the parasite does not produce its own workers and the nest just produces males and females of the invading parasite before it dies out. In some ant species the chain of socially parasitic species may have several links.

Nesting situations: Bees and wasps may construct their nesting chambers in the ground (ground nesting) or in aerial situations (aerial nesting). Such aerial nests may be constructed in dead wood (dead-wood nesting), dead bramble stems or similar pith-filled stems (stem nesting) or in a variety of cavities (cavity nesting).

Nest provisioning terms: These relate (in bees) to the preferred sources of pollen for provisioning the nest. Such resources may be very specific for some species. Nectar sources are not so clearly defined, although bees with longer tongues can forage at flowers with longer nectaries. Such flowers often have more concentrated nectar. The structure of the anthers and stigma is often related to the length of the tongue of the preferred pollinating insect.

Oligolectic: Bees which confine their pollen gathering activities to one species of plant, or a closely-related group of plants.

Polylectic: Bees which forage for pollen at a variety of different plants and show no particular preference.

Social organisation: The majority of bee and wasp species are solitary. One female provisions the nest and lays her eggs on the provisions. A number of solitary nesting insects may use the same small area when they are said to nest colonially. Eusocial species have a founding female who lays all the eggs, but the first insects to hatch (females) stay and help run the nest. At the end of the season males and females are produced. These mate and the newly mated females start their own nests. Usually only mated females overwinter. Some ant colonies have several mated females (queens).