

INVERTEBRATE SITE SURVEY OF FIELD OFF BLUEHOUSE LANE, OXTED, SURREY, 2024

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Summary

A survey of terrestrial invertebrates was carried out across field and woodland field north of Bluehouse Lane, Oxted on 29th May 2024.

A total of 106 invertebrate taxa were identified, one of which Small Heath (*Coenonympha pamphilus*) is a Section 41 Priority Species.

The pasture field is largely very species poor and has a low value for invertebrates, grass vetchling and ox-eye daisy were the only potential host species of any value within the sward which is dominated by Yorkshire fog and rye-grass.

EXPERTISE

I have worked as a freelance Ecologist specialising in invertebrates since 1995. I have published over 450 papers and notes on the distribution and ecology of the British invertebrate fauna, and authored *Beetles of Surrey*, and *Water Bugs & Water beetles of Surrey* in the Surrey Wildlife Trust Atlas series. I am county recorder for Surrey for Coleoptera, Heteroptera and Spiders. I have carried out over 150 baseline invertebrate surveys across the County since 1995.

INTRODUCTION

A site assessment of the field north of Bluehouse Lane was commissioned to further elucidate the relative values of the habitats for invertebrate species.



Figure 1. Site plan. *Courtesy of Google maps*

RAPID ASSESSMENT METHODOLOGY

The site was walked and scores assigned to habitat elements present. The habitat elements and scoring criteria created by Dobson & Fairclough (2021) are summarized below:-

Summary of the 11 habitat elements assessed by IHP survey.

HE1 In all its forms; from decaying wood on/in large trees to woodland floor debris

Rotational Management

HE2 Planned or serendipitous; and whether for nature conservation or other purposes

Nectar Resources

HE3 As a proxy for nectar- and pollen resources, as assessment of pollen resources is impracticable on a walk-through survey Wet Substrates

HE4 Including marginal, marshy, muddy and seasonally inundated habitats, as well as flushes Open Water Habitats

HE5 The open water element of rivers, lakes, ponds, streams, ditches, etc. Structural Patchwork

HE6 Habitat mosaics, including, but by no means restricted to open mosaic habitats on previously developed land Still Air (S)

HE7 Suntraps and still-air microclimates in open situations; the term 'still air' is used in preference to 'wind breaks' as many rigid wind breaks are likely to produce turbulent air in their lee Still Air (H)

HE8 Humid still-air microclimates in sheltered and shaded situations Connectivity

HE9 Landscape-scale connectivity between the site and external habitats Ecoclines

HE10 A graded transition between two or more broad habitats Bare Earth

HE11 Unshaded bare or sparsely vegetated well-drained substrate, regardless of soil type.

Grading system applied to habitat elements.

Grade Description

Negligible/Absent (E) Habitat element is absent or of insignificant (barely perceptible) quantity.

Minor (D) Habitat element is present but is insufficient quality to qualify as Moderate or above. For example, it may be of extremely limited extent, or very sparsely dispersed. Likely to support common and widespread, generalist species.

Moderate (C) A clear example of the habitat element is present, but which does not qualify as Major. Likely to be of sufficient quality to support a characteristic invertebrate fauna.

Major (B) Good quality examples of each habitat element which do not meet the criteria for Exceptional. Likely to be a predominant factor in supporting characteristic and specialised invertebrate assemblages. Considerations might include the extent, maturity and historic and current connectivity of the element.

Exceptional (A) Very high-quality examples of the habitat element, including but not restricted to those of potential regional significance. This may be for reasons of intrinsic quality, rarity, vulnerability or the perceived importance of its position in the wider landscape.

INVERTEBRATE SAMPLING

Because it is impracticable to survey all the potential invertebrates within any given site, only specific groups of species were examined during fieldwork. These groups are sufficiently well known as to allow meaningful comparisons to be made with other sites, both locally and nationally. They are also important as indicators of the quality of a site and the habitats present (see Brooks 1993).

Groups covered during the survey were:

- Mollusca (slugs and snails)
- Arachnida (spiders, harvestmen & pseudoscorpions)
- Isopoda (woodlice)
- Thysanura (bristletails)
- Ephemeroptera (mayflies)
- Odonata (dragonflies & damselflies)
- Plecoptera (stoneflies)
- Orthoptera (grasshoppers & crickets)
- Dictyoptera (cockroaches)
- Dermaptera (earwigs)
- Hemiptera-Heteroptera (true-bugs)
- Hemiptera-Homoptera (hoppers)
- Neuroptera (lace-wings)
- Mecoptera (scorpion-flies)
- Lepidoptera (butterflies & moths)
- Trichoptera (caddis flies)
- Diptera (true flies)
- Aculeate Hymenoptera (ants, bees & wasps)
- Coleoptera (beetles)

RESULTS

Weather conditions were sunny and warm on the visit. A total of 105 species of invertebrate were recorded (species list is given in Appendix 2), one of which Small Heath (*Coenonympha pamphilus*) is a Section 41 Priority Species..

RAPID ASSESSMENT

The scores assigned are shown in Appendix 1. The field does not pass the threshold for requirement of further surveys. The site has potential to support Schedule 41 species. Brown hairstreak may utilise the blackthorn growing in open conditions on the southern edge of the woodland and eastern hedgeline.



Figure 2. Looking north from Southwest corner of site.



Figure 2. Looking north across field



Figure 4. Looking northeast through wood



Figure 5. Woodland showing dense bramble understorey



Figure 6. Seasonal pool in woodland

ECOLOGICAL ASSESSMENT

The pasture field is very species poor and has a low value for invertebrates (see figures 2 & 3), the main exception being the presence of a thriving colony of grass feeding small heath butterfly with at least 40 seen across the field, especially along the sheltered southern.

The woodland has old woodland indicators including abundant bluebells, enchanter's nightshade, three-veined sandwort, wood melick and dog's mercury. However, the more open areas are dominated by bramble patches and the thinner woodland along the north edge has abundant cow parsley, with cleavers locally aggressive (See figures 4 and 5). The understorey is well developed with ash, holly, hawthorn, crab apple and some hazel. Small wood is abundant, but the larger trees mainly ash and oaks (<150 years old). There is one larger oak with extensive epicormic growth.

There is a seasonal pool (see figure 6) which was quite full after the recent heavy rains. It is devoid of macrophytes and unlikely to support much of interest.

The peripheral hedges and southern edge of the woodland has some blackthorn which may be utilised by Brown Hairstreak.

Rapid assessment of the field indicates it does not pass the threshold for further surveys. However, it does support a population of small heath which is a schedule 41 species.

REFERENCES

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APPENDICES

APPENDIX 1. RAPID ASSESSMENT SCORES

Scores in bold are compartments which pass the threshold and would warrant further survey.

Recording compartment	HE1 (decaying wood)	HE2 (rotational management)	HE3 (Nectar)	HE4 (wet substrates)	HE5 (Open water)	HE6 (Patchwork open mosaic)	HE7 (shelter sun traps)	HE8 (shelter damp shaded)	HE9 (connectivity)	HE10 (ecocline)	HE11 (bare ground)
Grassland	E	D	D	E	E	E	D	E	D	D	E
Woodland	C	D	D	D	D	D	D	D	D	D	E

APPENDIX 2. Species list for 2024

Species	Family	Order	Conservation status
<i>Anyphaena accentuata</i>	Anyphaenidae	Araneae	common
<i>Araneus diadematus</i>	Araneidae	Araneae	common
<i>Araniella cucurbitina</i>	Araneidae	Araneae	common
<i>Nuctenea umbratica</i>	Araneidae	Araneae	common
<i>Erigone atra</i>	Linyphiidae	Araneae	common
<i>Linyphia triangularis</i>	Linyphiidae	Araneae	common
<i>Ero aphana</i>	Mimetidae	Araneae	local
<i>Philodromus albidus</i>	Philodromidae	Araneae	common
<i>Philodromus cespitum</i>	Philodromidae	Araneae	common
<i>Philodromus rufus</i>	Philodromidae	Araneae	local
<i>Tetragnatha extensa</i>	Tetragnathidae	Araneae	common
<i>Tetragnatha montana</i>	Tetragnathidae	Araneae	common
<i>Anelosimus vittatus</i>	Theridiidae	Araneae	common
<i>Paidiscura pallens</i>	Theridiidae	Araneae	common
<i>Misumena vatia</i>	Thomisidae	Araneae	common
<i>Xysticus cristatus</i>	Thomisidae	Araneae	common
<i>Cantharis rufa</i>	Cantharidae	Coleoptera	common
<i>Malthodes minimus</i>	Cantharidae	Coleoptera	common
<i>Clytus arietis</i>	Cerambycidae	Coleoptera	common
<i>Grammoptera ruficornis</i>	Cerambycidae	Coleoptera	common
<i>Bruchus loti</i>	Chrysomelidae	Coleoptera	common
<i>Coccinella septempunctata</i>	Coccinellidae	Coleoptera	common
<i>Rhyzobius chrysomeloides</i>	Coccinellidae	Coleoptera	common

<i>Rhyzobius litura</i>	Coccinellidae	Coleoptera	common
<i>Tytthaspis sedecimpunctata</i>	Coccinellidae	Coleoptera	common
<i>Curculio glandium</i>	Curculionidae	Coleoptera	common
<i>Sitona lineatus</i>	Curculionidae	Coleoptera	common
<i>Strophosoma melanogrammum</i>	Curculionidae	Coleoptera	common
<i>Dasytes aeratus</i>	Dasytidae	Coleoptera	common
<i>Malachius bipustulatus</i>	Malachiidae	Coleoptera	common
<i>Meligethes flavimanus</i>	Nitidulidae	Coleoptera	common
<i>Oedemera lurida</i>	Oedemeridae	Coleoptera	common
<i>Oedemera nobilis</i>	Oedemeridae	Coleoptera	common
<i>Hemicoelus fulvicorne</i>	Ptinidae	Coleoptera	common
<i>Pyrochroa serraticornis</i>	Pyrochroidae	Coleoptera	common
<i>Tatianaerhynchites aequatus</i>	Rhynchitidae	Coleoptera	common
<i>Anaspis fasciata</i>	Scraptiidae	Coleoptera	common
<i>Anaspis maculata</i>	Scraptiidae	Coleoptera	common
<i>Tachyporus hypnorum</i>	Staphylinidae	Coleoptera	common
<i>Forficula auricularia</i>	Forficulidae	Dermoptera	common
<i>Calliphora vomitoria</i>	Calliphoridae	Diptera	common
<i>Lucilia sericata</i>	Calliphoridae	Diptera	common
<i>Dasineura fraxini</i>	Cecidomyiidae	Diptera	common
<i>Lonchoptera lutea</i>	Lonchopteridae	Diptera	common
<i>Scathophaga stercoraria</i>	Scathophagidae	Diptera	common
<i>Episyrphus balteatus</i>	Syrphidae	Diptera	common
<i>Eristalis arbustorum</i>	Syrphidae	Diptera	common
<i>Eristalis pertinax</i>	Syrphidae	Diptera	common
<i>Eupeodes corollae</i>	Syrphidae	Diptera	common
<i>Eupeodes luniger</i>	Syrphidae	Diptera	common
<i>Myathropa florea</i>	Syrphidae	Diptera	common
<i>Xylota segnis</i>	Syrphidae	Diptera	common
<i>Philaenus spumarius</i>	Aphrophoridae	Hemiptera	common
<i>Iassus lanio</i>	Cicadellidae	Hemiptera	common
<i>Ledra aurita</i>	Cicadellidae	Hemiptera	local
<i>Tachycixius pilosus</i>	Cixiidae	Hemiptera	common
<i>Coreus marginatus</i>	Coreidae	Hemiptera	common
<i>Closterotomus trivialis</i>	Miridae	Hemiptera	common
<i>Cylloceria histronius</i>	Miridae	Hemiptera	common
<i>Deraeocoris lutescens</i>	Miridae	Hemiptera	common
<i>Dryophilocoris flavoquadrimaculatus</i>	Miridae	Hemiptera	common
<i>Harpocera thoracica</i>	Miridae	Hemiptera	common
<i>Miris striatus</i>	Miridae	Hemiptera	common
<i>Phylus melanocephalus</i>	Miridae	Hemiptera	common
<i>Psallus assimilis</i>	Miridae	Hemiptera	common
<i>Psallus perrisi</i>	Miridae	Hemiptera	common
<i>Psallus varians</i>	Miridae	Hemiptera	common

<i>Rhabdomiris striatellus</i>	Miridae	Hemiptera	common
<i>Palomena prasina</i>	Pentatomidae	Hemiptera	common
<i>Pentatoma rufipes</i>	Pentatomidae	Hemiptera	common
<i>Psyllopsis fraxini</i>	Psyllidae	Hemiptera	common
<i>Apis mellifera</i>	Apidae	Hymenoptera	common
<i>Bombus lucorum</i>	Apidae	Hymenoptera	common
<i>Bombus pascuorum</i>	Apidae	Hymenoptera	common
<i>Bombus terrestris</i>	Apidae	Hymenoptera	common
<i>Arge cyanocrocea</i>	Argidae	Hymenoptera	common
<i>Lasius flavus</i>	Formicidae	Hymenoptera	common
<i>Lasius niger</i>	Formicidae	Hymenoptera	common
<i>Myrmica ruginodis</i>	Formicidae	Hymenoptera	common
<i>Lasioglossum morio</i>	Halictidae	Hymenoptera	common
<i>Armadillidium vulgare</i>	Armadillidiidae	Isopoda	common
<i>Philoscia muscorum</i>	Philosciidae	Isopoda	common
<i>Anthophila fabriciana</i>	Choreutidae	Lepidoptera	common
<i>Camptogramma bilineata</i>	Geometridae	Lepidoptera	common
<i>Celastrina argiolus</i>	Lycaenidae	Lepidoptera	common
<i>Favonius quercus</i>	Lycaenidae	Lepidoptera	local
<i>Coenonympha pamphilus</i>	Nymphalidae	Lepidoptera	Section 41 Priority Species; VU
<i>Pararge aegeria</i>	Nymphalidae	Lepidoptera	common
<i>Vanessa atalanta</i>	Nymphalidae	Lepidoptera	common
<i>Alabonia geoffrella</i>	Oecophoridae	Lepidoptera	common
<i>Gonepteryx rhamni</i>	Pieridae	Lepidoptera	common
<i>Pieris rapae</i>	Pieridae	Lepidoptera	common
<i>Acleris forsskaleana</i>	Tortricidae	Lepidoptera	common
<i>Grapholita compositella</i>	Tortricidae	Lepidoptera	common
<i>Tortrix viridana</i>	Tortricidae	Lepidoptera	common
<i>Lithobius forficatus</i>	Lithobiidae	Lithobiomorpha	common
<i>Enallagma cyathigerum</i>	Coenagrionidae	Odonata	common
<i>Pyrrhosoma nymphula</i>	Coenagrionidae	Odonata	common
<i>Chorthippus brunneus</i>	Acrididae	Orthoptera	common
<i>Meconema thalassinum</i>	Meconematidae	Orthoptera	common
<i>Leptophyes punctatissima</i>	Phaneropteridae	Orthoptera	common
<i>Pholidoptera griseoptera</i>	Tettigoniidae	Orthoptera	common
<i>Valenzuela flavidus</i>	Caeciliusidae	Psocoptera	common
<i>Arion subfuscus</i>	Arionidae	Pulmonata	common
<i>Monacha cantiana</i>	Hygromiidae	Pulmonata	common
<i>Lehmannia marginata</i>	Limacidae	Pulmonata	common
<i>Aegopinella nitidula</i>	Oxychilidae	Pulmonata	common