## LDP-EBD-STR3B.4.K



## Land Off Lesters Lane, Broughton

An Invertebrate Scoping Assessment

A report for: TEP

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By: Conops Entomology Ltd

Report Number: 30.18

# ConopsEntomologyLtd Invertebrate survey, research and conservation advice

#### Land off Lesters Lane, Broughton

An Invertebrate Scoping Assessment

Report number: 30.18

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### 1 Introduction

- 1.1 To undertake an invertebrate scoping assessment of an area of land off Lesters Lane, Broughton in Flintshire (referred to as 'the site' from this point forward) prior to possible development. The assessment was to appraise the key habitats and/or features of the site through on-site scoping and to assess their suitability and quality to support rich and varied invertebrate assemblages or species of principal importance and/or those with a nationally significant status such as those listed in the Red Data Book (RDB).
- 1.2 The site is located at OS grid reference SJ 3237 6253.
- 1.3 The site is predominantly a series of poor semi-improved fields with mature, speciespoor hedgerows with trees. Mature oak trees (*Quercus* spp.) are present within the fields. There are also two areas of woodland that are present within the boundary of the site and a large pond surrounded by trees.

## 2 Methods and timings

- 2.1 All areas of the site were walked by a recognized invertebrate ecologist<sup>1</sup>.
- 2.2 Any areas of the site that exhibited features of potential value to support key species [including NERC Act Section 41 (S41), RDB or Nationally Scarce and species of interest] or rich assemblages of invertebrates were photographed and used as evidence in the evaluation.
- 2.3 The site was appraised based on the quality, frequency, and footprint of the existing key features or juxtaposition of any features to one another (mosaics).

#### Survey timing

2.4 The site was visited on a single occasion:

4 June 2018: sunny, 18–20°C.

<sup>&</sup>lt;sup>1</sup> Andy Jukes is a Fellow of the Royal Entomological Society (FRES) and a Member of the Chartered Institute of Environmental and Ecology Managers (MCIEEM). He has over 20 years' involvement with invertebrates, including experience of surveying for brown hairstreak butterflies in site assessments.

Land Off Lesters Lane, Broughton

## **3** Habitats and features

#### Grasslands

3.1 The fields across the site appear to be generally improved and poor semi-improved grassland with a high dominance of coarse grass species with little botanical diversity. The fields are also heavily poached and grazed by a mixture of dairy and beef cattle.



Photograph 1: Improved grassland

#### **Boundary features**

- 3.2 The fields are mainly bounded on most sides by hedges and/or tree lines. These woody boundaries are not diverse and are largely hawthorn dominated (*Crataegus monogyna*).
- 3.3 Where the fields are not bounded by hedges, they are bordered by woodland or fences.

#### Woodlands

3.4 The site includes a number of small woodlands. The largest, a linear woodland across the southern third of the site, is a mixed woodland with coniferous and broadleaved species. The broadleaved species comprise beech (*Fagus sylvativa*), sycamore (*Acer pseudoplatantus*), and oak (*Quercus* spp.) amongst others. The trees are predominantly tall and thin, owing to their close proximity to one another resulting in trees falling over or dying *in situ* creating standing deadwood resources. These resources are hover limited and inhibited owing to heavy shading. The eastern end of the woodland is of slightly higher value than the western end, owing to a more open character and low density of trees. This end also benefits from transitional scrub fringe including elder (*Sambucus nigra*). The interior of this unfenced area of woodland, however, is heavily grazed, reducing vegetation and habitat structure.



Photograph 2: Scrub edge



Photograph 3: Grazed woodland

3.5 The other small woodlands across the site are largely unfenced and as such have been impacted by cattle through grazing and poaching. The woodlands themselves comprise mainly oak but of a young to moderate age with very little deadwood on them or other niche features such as rot holes or sap runs.



Photograph 4: Typical understorey of woodlands with rank vegetation, poaching and small amounts of fallen small-diameter timber

#### **Open-grown** oak trees

3.6 A number of oak trees appear to have been originally part of hedgerows but retained as in-field features. Most of these trees are of moderate age with little deadwood; however, there is a suite of oak trees that possess some deadwood on them and also a few locations where deadwood is more substantial.



Photograph 5: Fallen deadwood



Photograph 6: Deadwood on a tree

#### Wetland features

3.7 Passing through the large woodland towards the south of the site is a small stream, which reappears on the eastern end of the woodland. The stream is small and shallow, and is poached heavily by cattle.

## 4 Habitat evaluation and potential

#### Grassland: evaluation and potential

4.1 As 3.1 details, the fields are largely species-poor. The grassland, owing to its apparently botanically poor composition, heavy grazing pressure, and poaching, does not possess any significant features of value to invertebrates.

#### Boundary features evaluation and potential

4.2 At this site, the boundary features are largely species-poor managed hedges occasionally with trees. It is likely that this feature is not of high value to invertebrates, owing to the limited structural and botanical variation along the features and its proximity to another low-value habitat (improved pasture).

#### Woodland features: evaluation and potential

4.3 Only one woodland appears to be fenced and therefore prevents cattle from entering. The large linear woodland across the southern third of the site is, however, densely shaded with few large trees or deadwood. The ground flora is predominantly rank, and the flora suffers from significant influences from the surrounding land management. The other woodlands are unfenced and are used by cattle for shelter and browsing. These woodlands are heavily poached. The trees are also mainly young and create dense shade. It is suggested that the woodlands do not offer significant potential to woodland invertebrates.

#### **Open-grown oaks: evaluation and potential**

4.4 A small number of oaks on the site possess substantial deadwood on the trees and occasionally as fallen deadwood. This resource may be of some value to the corresponding saproxylic invertebrate fauna (mainly beetles), as the rot hole element preferred by flies does not seem to be well developed. However, given that the trees are in a heavily grazed environment with few areas of scrub from where many adult beetles will forage for nectar suggest that the resource, although superficially appearing to have potential, may be inhibited through the land management of the wider landscape.



Photograph 7: Open-grown trees in a heavily grazed setting, reducing potential for invertebrates

#### Wetland features: evaluation and potential

4.5 As the small stream passes through a heavily shaded woodland and then through heavily poached grassland, it is not thought to be of significant value to invertebrates.

## **5** Recommendations

- 5.1 Additional surveys could be undertaken at the site to further evaluate the potential of the principal feature of value, the saproxylic resource on open-grown trees.
- 5.2 Given that any saproxylic resource may, however, be inhibited by the surrounding land management of the site, being heavily grazed fields and managed hedgerows it is recommended, above further survey work, that significant trees be incorporated into any future development of the site. These trees and fallen deadwood, if sympathetically enhanced through inclusion of flowery and scrubby areas around aggregations of key trees and deadwood, would potentially be of greater value to any saproxylic resource currently on the trees.