

Insects of the Worcestershire Sandlands

John Bingham



01. The Sandlands. Areas of arable wildflowers form important areas for foraging mining bees. John Bingham.

The Sandlands (01) consist of the area of light sandy soils derived from the Triassic (Bunter) Sandstones that occur in north Worcestershire. Typically, they are acid in nature and free draining and can be divided basically into two main types: those suitable for agriculture (sugar beet growing in the past being typical) and those more impoverished, light soils that have developed into unimproved acid grassland and heathlands.

Sandlands are quite extensive in Worcestershire, starting from Ombersley heading in a northerly direction to the county boundary with Shropshire and Staffordshire. In general terms the more interesting areas for the naturalist occur around Kidderminster, including heathland sites such as Hartlebury Common, Devil's Spittleful and Rifle Range, Habberley Valley and Burlish Top. Out of interest it can be noted that nearly all roads in or out of Kidderminster pass through a sandstone cutting indicating the underlying geology. Other sandy areas including farmland may support entomological interest if managed with low chemical inputs but little information appears to be available as these tend not to be visited by naturalists. Perhaps the area of countryside, although heavily farmed, between Ombersley and Stourport may support pockets of land with undiscovered entomological interest. The Sandlands also extend into Shropshire, with sites like Dudmaston Estate and into Staffordshire to Kinver Edge and Highgate Common.

Some of the key features for insects include the associated plant species such as heathers, light soils, areas of bare or disturbed ground and a warm micro-climate. Good vegetation structure providing shelter and nectar sources add further to the suitability of sites. In this respect arable areas with a range of arable weed species (01) could be particularly important as many of the heathlands tend to be species poor floristically not providing a range of nectar or food plants over the year.

Of the insect groups typical of the Worcestershire Sandlands, Hymenoptera feature strongly. Solitary bees and wasps are well represented and of national significance. The presence of bare ground cannot be over-emphasized as it provides nesting habitat as well as good plant diversity with associated nectar sources. Species of note include: Bee Wolf *Philanthus triangulum*, formerly restricted to the south of England but now nesting along main roads in Kidderminster; the Spring Mining Bee, *Colletes cunicularius* only recently established at Hartlebury Common and Pantaloon Bee *Dasygaster hirtipes* which is common on the light friable sands. Around Kidderminster, especially in the Blackstone area, the Scarce Black Mining Bee *Andrena nigrospina* (02) occurs and shows a strong preference for nectaring on Radish *Raphanus raphanistrum*, occurring locally as an arable weed and Hogweed *Heracleum sphondylium*.



02. *Andrena nigrospina*. This scarce species can be found on arable weeds in sandy areas. John Bingham.

Many species of *Nomada* bees are common as cleptoparasites of the solitary bees with *Nomada signata*, a locally uncommon species occurring around Blackstone. The two common species of *Ammophila* Sand Wasps are present on most of the heathland areas (03) and recently a beetle-killing wasp *Tiphia femorata* has become established in many sandy areas. Formerly it was restricted to southern Britain. The presence of deadwood on the Sandlands is important for a range of specialist species, typically *Chrysis* spp. wasps or Cuckoo Wasps that are cleptoparasites on other wood-nesting wasps.



03. Heathland at Devil's Spittleful. John Bingham.

Hemiptera are another order of insects well represented but possibly ground bugs are still an under-recorded group. Many show strong associations with Heather *Calluna vulgaris* such as the tiny leafhopper *Ulopa reticulata* (04) and the rare Broad-headed Ant Bug *Alydus calcaratus*, a species associated with ants and often found underneath heather plants. The light friable soils are similar in nature to the sand dunes of more coastal areas and several species are linked to that habitat type. An example is a rhopalid bug *Chorosoma shillingi* that feeds on grasses. It is easily overlooked in the vegetation with its long thin body and in Worcestershire appears to be present only on Hartlebury Common. Leatherbugs also prefer friable soils with both Slender-horned Leatherbug *Ceraleptus lividus* and Denticulate Leatherbug *Cortiomeris denticulatus* now occurring quite commonly, often on arable margins.



04. *Ulopa reticulata*. A tiny leafhopper, restricted to sandy areas where it feeds on various heathers. John Bingham.

Coleoptera are well represented on the Sandlands and the Bloody-nosed Beetle *Timarcha tenebricosa* is local to a few Worcestershire sites where it feeds on bedstraws *Galium* spp. It may be found on Hartlebury Common (07) and is also recorded from the Malvern Hills and could be elsewhere. Many Coleoptera are associated with the heather plants. Two uncommon ladybirds can be found on most heathlands: Hieroglyphic Ladybird *Coccinella hieroglyphica* and Heather Ladybird *Chilocorus bipustulatus* but neither appear to be common. The One beetle that typifies our heaths is the Green Tiger Beetle *Cicindela campestris*. Although more widespread, it does

occur in several woodlands but can be a locally scarce species. Heather Beetle *Lochmaea suturalis* is well known and sometimes abundant, less well known is the Heather Weevil *Neliocarus sus* (05). The more ruderal margins of arable fields often support the odd-looking Monoceros Beetle *Notoxus monoceros* for which light sandy soils appear necessary: coastal areas or the Brecklands of East Anglia are its main strongholds with few records elsewhere. Finally, Oil Beetles, *Meloe* spp.. Alan Brown recorded Rugged Oil-beetle *Meloe rugosus*, at the Rifle Range NR but it has not been seen for several years. Being nocturnal it may have eluded recorders but given its importance it would be good to try and confirm its presence. Also, why has the Black Oil-beetle *Meloe proscarabaeus* never been recorded on our Worcestershire Sandlands when it occurs nearby in very similar habitats?



05. *Neliocarus sus*. A weevil restricted to heathers. Gary Farmer.

Butterflies and Moths are well recorded, though perhaps no butterflies are typical of our Sandlands. Several moths are more associated with the Sandlands but even the Emperor Moth *Saturnia pavonia* (06), so common on heathland, is possibly more frequent along the River Stour floodplain marshlands. Often large moths will be seen flying over heather typically the Fox Moth *Macrothylacia rubi* or the Oak Eggar *Lasiocampa quercus* but they are hardly restricted to such habitats. If any moth qualifies as a Sandland moth it must be Archer's Dart *Agrotis vestigialis*, more a coastal sand dune species but found at Hartlebury Common and at Devil's Spittleful. Heather plants support several moths including Beautiful Yellow Underwing *Anarta myrtilis* and Common Heath *Ematurga atomaria*. Of the micro moths the attractive Heather Knot-horn *Pempelia palumbella* is a heather specialist.

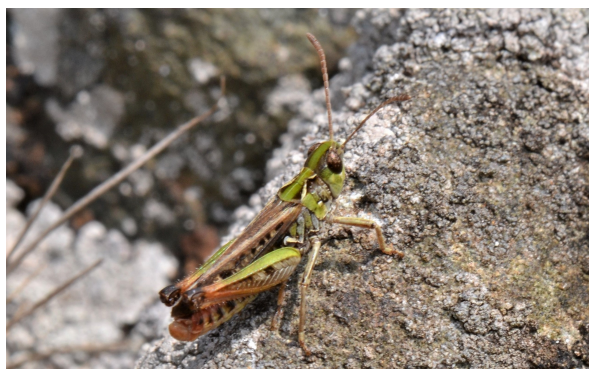


06. Emperor Moth *Saturnia pavonia*. Common on heathlands but equally at home in scrub and river floodplains. Gary Farmer.



07. Hartlebury Common, part of the Worcestershire Sandlands. John Bingham.

Diptera are also well represented with several special flies associated with the sandy habitats. One of the more spectacular species is the Hornet Robberfly *Asilus crabroniformis*, found around the Kidderminster area but only where dung from horses or cattle is present and animals are not treated with Avermectins. Other Robberflies are well represented with Spring Robberfly *Lasiopogon cinctus* particularly notable on heathy areas. Similar to the Robberflies are Stiletto Flies, with several species present such as *Acrosathe annulata* also typical of the bare sandy areas. Various thick-headed flies or bee-grabbers that parasitize wasps and solitary bees are frequent with *Sicus ferrugineus* one of the commonest species. *Myopa hirsuta* is a rare thick-headed fly that can be found on Hartlebury Common, often lurking around flowering Blackthorn *Prunus spinosa* or similar shrubs on the lookout for bees. Satellite flies *Miltogramma* spp. are similar parasites of bees, but are seen stalking on the ground following the bees as they return to their nest sites. One final parasitic group are the Tachinid flies that follow moths and shieldbugs. *Gonia picea* is a typical Tachinid often seen early in the year, but many other species frequent our Sandlands. *Tachina grossa* is an impressive large black Tachinid species that parasitizes Oak Eggar and Fox Moth: it appears to be uncommon but is occasionally reported. Finally, with our warming climate we have already seen Dotted Bee-fly *Bombylius discolor* appear recently on the Sandlands expanding its range from the south, but will Western Bee-fly *Bombylius canescens* do something similar and make an appearance in the near future?



08. Mottled Grasshopper *Myrmeleotettix maculatus*. Gary Farmer.

Of the Orthoptera Mottled Grasshopper *Myrmeleotettix maculatus* (08) is the most obvious Sandland species but is not restricted to this habitat. Old seed heads of Broom *Cytisus scoparius* are refuges for Lesne's Earwig *Forficula lesnei*, a species reported from Old Man's Beard *Clematis vitalba* elsewhere in the county.

Summary

With the exception of bees and wasps, Worcestershire's Sandlands still remain under recorded for the insect fauna, especially beyond the well-known heathland nature reserves, so this note can only be an introduction to the species to be found. Perhaps we have focused too much on heather heathlands when the sandy, friable soils, plant diversity, microclimate and occasional disturbance provide key features that occur on other sites. Arable headlands especially on organic farms may be of considerable interest. Add to this brown field sites, old quarries and other habitats like scrub, churchyards or gardens and there is plenty still to record.

Images

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