

# **Provisional Review of Scarcer Sandwell Valley Invertebrates.**

version 10 (March 2015)

**NB. This updates and replaces previous versions. Please inform us of any obvious errors or updates to help us refine our work.**

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## **Background**

Since 1974 local naturalists and Country Park Rangers have been gathering data about Sandwell Valley Wildlife. The advent of the EcoRecord database at the Wildlife Trust For Birmingham & the Black Country has enabled some 35 000 individual Valley wildlife records of over 4000 species to be computerised. The use of English Nature 'Recorder' has not only enabled analysis of the records into categories of rarity, but also enabled us to see the location of these species so that Country Park Managers and other interested parties have much more precise information on them than before. This is a seventh update of the original. It includes notes on many interesting local and scarce insects. This update retains lists of the Valley's ecological indicator species, concentrating on established woodland indicators. The final part lists the Butterflies of the Sandwell Valley with notes.

## **Limitations of the current data set**

- There are great differences in observer coverage on many potentially valuable Valley sites.
- Many organisms have not received attention for a variety of reasons- shortage of specialists and lack of identification literature for many obscure groups may mean that it is many years before some become accessible for study.
- A core problem lies in the fact that life histories and needs of so many species are so poorly known. Therefore many species (including Rare and Notable ones) register as names only in the minds of the reader.

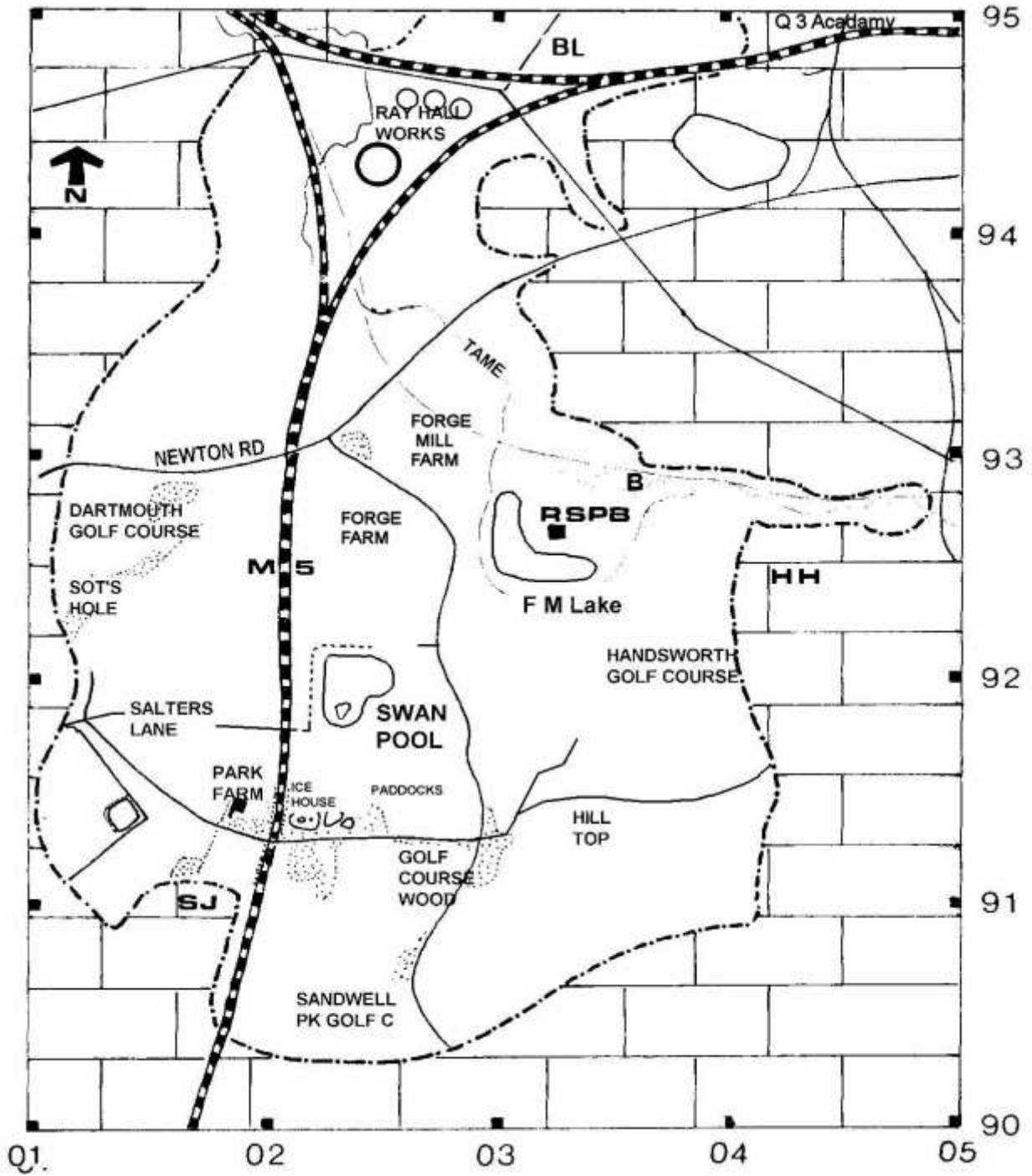
These are some primary difficulties that confront the professional site manager /conservationist who wishes to take the existing information into account in preparation of site management plans.

## **General observations on the data so far gathered**

The whole data set probably reflects the habitat fragmentation and complexity on sites where regular change of land use has been a constant feature.

- A very wide range of species adapted to different habitats has come to light. In this they suggest the validity of management practice which respects the integrity of the intriguing mosaic of relatively small but quite well differentiated habitats we have.
- Data confirms that certain subsites do hold species that enhance their value in conservation terms.
- It is arguable that the data currently show that we have no site demonstrating outstanding species richness. For example, we have a very good range of bare earth invertebrates but none of the very well known flagship species characteristic of a site such as Highgate common (Bobbington). This may again reflect the comparatively small areas of many of our distinctive habitats.
- The presence of a small set of remarkable organisms (new to Britain, p RDB1, RDB2) underlines our lack of knowledge, sending a message of caution that must flavour site management practice.
- The scientific value of the work is potentially considerable. Progress on concepts concerned with habitat loss linked to species loss and 'core site species indices' may well progress further from inclusion of our data. Many expert entomologists have been involved in the project.

# The Sandwell Valley



## Uncommon species with key locations

Species where status is probably in question are prefaced by a query. The Valley contains a remarkably large selection of hoverflies (136 of the 280 British species). The Status data for these insects was updated by Ball and Morris (2014) and this date is inserted. It is of interest that 16% of the listed Nationally Scarce hoverflies are recorded from the Valley. Readers are reminded that status reviews for most invertebrate families are regularly reviewed and that some data must therefore be treated with caution.

Species marked with \* are associated with damp habitats; those marked MT are associated with mature timber and those with BG are associated with open bare ground. Species added since the last version are marked \*\*. Nomenclature provisionally follows EN Recorder 3.3 (some names have yet to be amended).

GROUP	SPECIES	STATUS	LOCATION
Dragonfly	<i>Sympetrum sanguineum</i> *	? Nationally Scarce	Golf Course pool
Crickets	<i>Conocephalus discolor</i>	Nationally Scarce	RSPB Reserve
	<i>Metrioptera roeselii</i>	Nationally Scarce	RSPB Reserv
Beetles	<i>Platyderus ruficollis</i>	Nationally Scarce	Bluebell Wood
	<i>Cercyon ustulatus</i>	Nationally Scarce	Europa field stream
	<i>Deleaster dichrous</i>	Nationally Scarce	Europa (area)
	<i>Xantholinus elegans</i>	Local	Misidentified as <i>X.tricolor</i>
	<i>Quedius puncticollis</i>	Nationally Scarce	Sandwell Park Golf Course
	<i>Aphodius conspurcatus</i>	Nationally Scarce	Camping paddock
	<i>Melasis buprestoides</i> MT	Nationally Scarce	RSPB & Priory Wood
	<i>Hippodamia variegata</i>	Nationally Scarce	Priory & Park Farm .SPGC.
	<i>Abdera quadrifasciata</i> MT	Nationally Scarce	Priory ruins
	<i>Aulonium trisulcum</i> MT	Nationally Scarce	Park Farm & Europa
	<i>Luperus flavipes</i>	Nationally Scarce	Hill top pool GC field (Tame)
	<i>Oxystoma cerdo</i>	Nationally Scarce	Swan Pool M5 area
	<i>Byctiscus betulae</i>	Nationally Scarce	Priory & Park Farm
	<i>Cneorhinus plumbeus</i>	Nationally Scarce	Priory Paddocks
	<i>Sitona macularius</i>	Nationally Scarce	Park Farm
<i>Cossonus parallelepipedus</i> MT	Nationally Scarce	Priory & Park Farm	
stylopids	<i>Stylops melittae</i> BG	Nationally Scarce	Golf Course Wood
Moths	<i>Synanthedon vespiformis</i> MT	? Nationally Scarce	Priory Paddocks
	<b><i>Aplota palpella</i> MT</b>	<b>pRDB1 (BAP)</b>	<b>Europa (old trees)</b>
	<i>Crambus pratella</i>	Nationally Scarce	RSPB
	<i>Euzophera cinerosella</i>	Nationally Scarce	RSPB
	<i>Furcula bicuspis</i>	Nationally Scarce	Hamstead
	<i>Cucullia absinthii</i>	Nationally Scarce	Hamstead
Caddis Flies	<i>Ecnomus tenellus</i>	Regionally Notable	Europa/ St. John's Close
True Flies	<i>Tipula truncorum</i> MT	Nationally Scarce	Sandwell Park Golf Course
	<i>Helius pallirostris</i> *	Nationally Scarce	Footprint pool
	<i>Gnophomyia viridipennis</i>	Nationally Scarce	Sot's damp woodland
	<i>Sciophila nonnisilva</i>	Nationally Scarce	Golf Course Wood
	<i>Pilaria fuscipennis</i>	Nationally Scarce	Sot's damp woodland
	<i>Atypophthalmus inustus</i>	Nationally Scarce	Sot's damp woodland

	<i>Dicranomyia lucida</i>	Nationally Scarce	Sot's damp woodland
	<i>Thaumastoptera calceata</i>	Nationally Scarce	Sot's damp woodland
	<b><i>Brevicornu arcticoides</i></b>	<b>2nd Brit Rec</b>	<b>Europa Copse area</b>
	<i>Brevicornu proximum</i>	Nationally Scarce	Priory & park Farm Wood
	<i>Oxycera morrisii</i> *	Nationally Scarce	RSPB, Cypress & Footprint P
	<i>Neopachygaster meromelaena</i>	Nationally Scarce	Park Farm Wood
	<i>Stratiomys potamida</i> *	? Nationally Scarce	Priory Wood
	<i>Solva marginata</i> MT	? Nationally Scarce	Priory & Park Farm wood-Sot's
	<i>Rhamphomyia caliginosa</i>	? Nationally Scarce	Sot's (Dagger L)
	<i>Tomosvaryella palliditarsis</i>	? Nationally Scarce	Priory Wood
	<i>Pipunculus zugmayeriae</i>	? Nationally Scarce	Sandwell Park Golf Course
	<i>Brachyopa pilosa</i>	Nationally Scarce	North Priory Wood <b>2014</b>
True flies	<i>Platycheirus perpallidus</i> *	Nationally Scarce	Cascade & Cypress pools <b>2014</b>
	<i>Meligramma guttatum</i>	Nationally Scarce	Priory Wood & Sot's <b>2014</b>
	<i>Metasyrphus latilunulatus</i>	Nationally Scarce	Priory Wood (species complex)
	<i>Cheilosia velutina</i>	Nationally Scarce	Park Fm, Priory, Jubilee. <b>2014</b>
	<i>Ferdinandea ruficornis</i> MT	Nationally Scarce	Sot's <b>2014</b>
	<i>Mallota cimbiciformis</i>	Nationally Scarce	Priory <b>2014</b>
	<i>Triglyphus primus</i>	Nationally Scarce	Europa, PkFarm.Jubilee <b>2014</b>
	<i>Xylota tarda</i>	Nationally Scarce	Park Farm wood <b>2014</b>
	<i>Orellia falcata</i>	Nationally Scarce	Blackstonia Field
	<i>Euphranta toxoneura</i>	Nationally Scarce	Priory Wood
	<i>Cryptaciura rotundiventris</i>	Nationally Scarce	Nature Trail ? ex J Robbins
	<i>Paroxyna absinthii</i>	Nationally Scarce	Park Farm & Priory Wood
	<i>Megamerina dolium</i>	Nationally Scarce	Park Farm & priory Wood
	<i>Aulogastromyia anisodactyla</i>	Nationally Scarce	Park Farm & Priory Wood
	<i>Homoneura thalhammeri</i> *	? Nationally Scarce	Gorse Farm Wood*
	<i>Pherbellia brunnipes</i> *	Nationally Scarce	Footprint Pool
	<i>Pherbellia dorsata</i> *	Nationally Scarce	Footprint Pool
	<i>Psacadina verbekei</i> *	? Nationally Scarce	Footprint Pool
	<i>Dasiops spatiosus</i>	Nationally Scarce	Priory Wood
	<i>Lonchaea hirticeps</i>	Nationally Scarce	Park Farm (Sot's-Dagger L)
	<i>Lonchaea palposa</i>	Nationally Scarce	(Sot's- Dagger L)
	<b><i>Lonchaea hackmani</i> MT</b>	<b>1st English R</b>	<b>Park Farm Wood</b>
	<i>Paraclusia tigrina</i> MT	RDB2	Priory & Park Farm Wood
True flies	<i>Aulacigaster leucopeza</i>	Nationally Scarce	Park Farm wood
	<i>Anthomyza bifasciata</i>	Nationally Scarce	Footprint pool
	<b><i>Anthomyza macra</i></b>	<b>1st Brit Rec</b>	<b>Priory Wood</b>
	<i>Chymomyza costata</i>	Nationally Scarce	(Sot's- Dagger L)
	<i>Calamoncosis aspistylina</i> *	3rd Brit Rec	RSPB
	<i>Fiebrigella palposa</i> BG	Nationally Scarce	Sandwell Park Golf Course
	<i>Gasterophilus intestinalis</i>	Nationally Scarce	Priory Paddock
	<i>Brachicheta strigata</i>	Nationally Scarce	Ray Hall WR
	<i>Phania vittata</i>	Nationally Scarce	Priory Wood
	<i>Peribaea fissicornis</i>	Nationally Scarce	Europa
	<i>Wagneria gagatea</i>	RDB3	Park Farm
	<b><i>Catharosia pygmaea</i></b>	<b>Ist British</b>	<b>Ray Hall N.C.area</b>
	<i>Subclytia rotundiventris</i>	RDB3	Priory Wood
	<i>Macronychia striginervis</i>	Nationally Scarce	Priory Wood &SPGC
	<b><i>Metopia grandii</i> BG</b>	<b>3rd Brit Rec</b>	<b>Sot's</b>
	<i>Thricops foveolatus</i>	Nationally Scarce	Park Farm & Priory woods

	<i>Hydrotaea parva</i> *	Nationally Scarce	Swan Pool Inflow. SPGC
	<i>Phaonia atriceps</i> *	?Nationally Scarce	Priory wood, Ray Hall, RSPB
	<i>Phaonia pratensis</i> MT	Nationally Scarce	Hamstead Ramsons Wood
True flies	<i>Phaonia laeta</i> MT	pRDB3	Park Farm wood
	<i>Helina calceata</i>	Nationally Scarce	Park Farm Wood
	<i>Spilogona scutulata</i> *	pRDB3	RSPB
Sawfly	<i>Harpiphorus lepidus</i>	? pRDB3	Sandwell Park Golf Course
Braconid wasp	<i>Proterops nigripennis</i>	Nationally Scarce	Sandwell Park Golf Course
Aculeate bees	<i>Tiphia minuta</i> BG	Nationally Scarce	Sandwell Park Golf Course
	<i>Andrena nigriceps</i> BG	Nationally Scarce	Sandwell Park Golf Course
	<i>Andrena humilis</i> BG	Nationally Scarce	Sandwell Park Golf Course
Solitary wasp	<i>Nomada ferruginata</i>	Nationally Scarce	RSPB 2011
	<i>Nomada pleurosticta</i> BG	Nationally Scarce	Sandwell Park Golf Course
	<i>Crossocerus distinguendus</i>	Nationally Scarce	North Priory Wood
	<i>Nysson trimaculatus</i>	Nationally Scarce	RSPB
	<i>Stigmus pendulus</i>	Nationally Scarce	Sot's 2010

### **The Rare & Notable Valley insects and their conservation**

This section defines rarity categories, giving Latin and English names where possible and providing individual conservation suggestions.

#### **New species for the British Isles with Rarity categories undefined until further data is available. Currently classified as 'Data Deficient'.**

##### *Anthomyza macra*

This small fly was taken in Priory wood and is a member of a small family usually associated with grasses. The insects are not well known and the needs of this one are a mystery. Two new British records have been added since its discovery- none in the 21<sup>st</sup> century.

##### **Conservation suggestions.**

**Routine management with no excessive disturbance to the herb layer ought to be sufficient. No chemical treatments ought to be used on herbage without consultation. Further sweeping may uncover more specimens, but a precarious foothold in the locality is a safe assumption.**

##### *Catharosia pygmaea* \*\*

This small parasitic fly was taken in a malaise trap catch during a Wildlife Trusts (B&BC) survey on the Ray Hall Nature conservation area on the old lagoons in 1995.

As an unrecognised insect, it was put on one side for specialist examination and forgotten until 2001 by which time the species had been added to the British lists by S.J.Falk (Warwick Museum) from a specimen found in Coventry. The Ray Hall fly, however, remains the first so far known to have been found in the British Isles. Parasitising bugs, it is known from several European localities..

##### **Conservation suggestions.**

**Severn- Trent has been informed and it is probable that, given the isolated and secure character of the site, the best course of action is to let well alone. The Wildlife Trust may well approach the landowner with the intention of monitoring the site again in the near future and more may be learnt about the fly.**

#### **New English species**

##### *Lonchaea hackmani*

Recently bred from Grey Poplar bark in Park Farm Wood. This species is otherwise recorded from Aspen in the Caledonian pine forest. The extent of the population here may be the subject of further investigation this spring as no time was found for this task since 2002.

##### **Conservation suggestions**

**The Sandwell Valley is remarkable in Birmingham & the Black Country for good stands of old grey poplar. A very substantial area (about half) of the fine Park Farm/Priory wood stand was lost when the M5 motorway was constructed in 1972.**

**Leave felled Grey Poplar logs in situ at all costs and try to avoid further loss to the existing Sandwell Valley resource pending further investigation.**

## 2<sup>nd</sup> / 3<sup>rd</sup> British Records

### *Brevicornu arcticoides*

A small fungus gnat from woodland about which little is known (in coll P.Chandler)

#### **Conservation suggestions**

**Avoid extensive 'tidying up' of areas of woodland floor and rough grassland in the woodland complexes around Park Farm. Severely restrict any use of chemical treatments.**

### *Metopia grandii*

A medium sized fly probably associated with bees & wasps. Still only found on a handful of British sites and not recently rediscovered here.

#### **Conservation suggestions**

**Bare earth near the Tee in Sot's hole marked the original site. As much of this habitat has gone, it would be useful if the new path at the top of the bank was kept open with very short bordering vegetation & some bare earth to encourage solitary bees & wasps (good for the public & good for the fly!). The retention of standing dead timber is also important because this is habitat for solitary wasps (which may be alternative hosts here).**

## British Red Data Book species

### **PRDB1**

**Species falling in this category have a provisional ' Endangered' label. There is insufficient information to absolutely assess their status but the evidence in the shape of scarcity of sightings / restricted habitat requirements etc, suggests that they could soon become extinct in Britain.**

### *Aplota palpella* (provisional British BAP list)

This is a micro moth which has been very occasionally recorded in Britain. The specimen was captured in St John's Close (house adjoining Europa Copse- an area of mature oak woodland). The specimen is in the Staffordshire collection of the late R.G.Warren.

#### **Conservation suggestions**

**The moth breeds in moss on the bark of trees. Old orchard trees, oaks etc. have harboured populations according to the literature. The presence of this species probably reinforces the general principle of protecting mature trees in the vicinity of the Farm and in conservation areas, because they may harbour some very special relict species.**

### **RDB2**

**Taxa believed likely to move into the Endangered category in the near future if the causal factors keep operating.**

### *Paraclusia tigrina* (may soon be downgraded to Notable)

This conspicuous fly occurs in Priory and Park Farm woods. It is widely distributed but scarce in Britain - recorded on rotten sycamore stumps here and also on a rotten fallen horse chestnut trunk.

#### **Conservation suggestions**

**Old tree stumps have an abiding value in invertebrate conservation. The use of stump killing chemicals in these woods should be avoided if possible and the existing policy of allowing dead timber to degrade on site is strongly reinforced by the continued existence of this insect. Destruction of habitat is recorded as a salient factor in the decline of RDB2 populations.**

### **RDB3**

**Taxa with small populations that are not at present endangered or vulnerable, but are at risk.**

### *Wagneria gagatea*

A shining black fly parasitic on several different moth species. Occurring in Park Farm Wood, its possible hosts include quakers, winter moth and mottled umber- all recorded from the Valley.

#### **Conservation suggestions**

**The prospects for the retention of this insect are probably good because of the abundance of potential hosts. Given that no gross habitat changes occur, it ought to persist.**

### *Subclytia rotundiventris* (may soon be downgraded)

A black and yellow fly parasitic on bugs- especially Birch shieldbug & Parent bug, both of which are abundant in the Valley. Found near Priory Pool.

#### **Conservation suggestions**

**Another insect with good prospects for retention for reasons given under *Wagneria* (above).**

### **PRDB3 & PRDBK**

**Taxa believed to fall into the RDB categories but with insufficient supporting data yet available to make definite assignment possible.**

#### *Calamoncosis aspistylina*

A small grass fly found on the RSPB marsh

#### **Conservation suggestions**

**This insect has been found on only two other sites in the British Isles . Its presence hints at the antiquity of the existing marsh area and supports management practice retaining close continuity of habitat type.**

#### *Spilogona scutulata*

A black fly found on the RSPB marsh.

#### **Conservation suggestions**

**This insect is found on a limited number of coastal marshes and its presence is a surprise. Again it hints at the antiquity of the marsh and suggests the need to investigate its fauna further. Continuity of general habitat management practice is probably important in protecting such insects.**

#### *Phaonia laeta*

A grey and black fly found on a Turkey oak sap run in Park Farm wood. A species characteristic of older woodlands.

#### **Conservation suggestions**

**There is little data on this insect but the association with mature timber is suggested with implications for conservation of the same- standing, fallen and as good stumps.**

#### *Harpiphorus lepidus*

A little sawfly swept from oak on Sandwell park Golf Course (Park Lane wall)

#### **Conservation suggestions**

**According to English Nature this insect may well be under recorded. Currently it remains a scarce insect with few British records. Development is said to be on oak leaves so it may well be an indicator of long continuity of habitat in the Golf Course Woodland areas.**

### **The Nationally Scarce insects of the Sandwell Valley.**

**Species of insects which are estimated to occur within the range of 16 to 100 modern 10 km squares.** This is a large section with many species worthy of consideration. This revision is currently limited to consideration of the Crickets and moths but readers will note that some are mentioned in the section on Woodland indicator species (page 9).

#### **Orthoptera**

##### **Roessel's bush cricket (*Metrioptera roeselii*).**

Discovered in 2004 this is a significant addition to the Valley Fauna. It is characteristic of scrub areas and woodland fringes and is predominantly southern in distribution. It is easily recognised by a combination of long antennae and striking yellow markings along the side of the body.

#### **Conservation suggestions**

Maintain the light scrub areas currently existing in Forge Mill- RSPB reserve surrounds area without allowing development to mature woodland Completely clear areas of unimproved grassland should be retained. Monitor annually for this unusual insect.

##### **Long –winged Conehead (*Conocephalus discolor*)**

Newly discovered in 2006 the conservation notes for Roessel's ( with which it occurs) will suffice.

#### **Lepidoptera.**

As a group of insects probably more extensively studied in recent history than most others and by more entomologists, the rarity data must be given particular significance.

##### ***Synanthedon vespiformis* (red-legged clearwing moth)**

Found on a veteran sweet chestnut in the paddock close to Forge Lane and the power line, whilst it explored the bark .

The clearwings bear striking resemblance to wasps and may be mistaken for them at first sight until the strange erratic flight and other behaviour betrays them. The species here has a historically widespread distribution in England, but has apparently become far less common than was once the case. Characteristic of woodland, it apparently oviposits in fresh oak stumps but will also choose excrescences on the trunks of other trees such as beech & sweet chestnut.

**Conservation suggestions.**

The discovery of 'clearwing trees' is a matter of some significance. Most species are now rare and therefore steps need to be taken to ensure continuity of the habitat. The suggestion is that the tree concerned here is tagged (possibly as a part of a programme of tagging a number of selected mature trees in the Valley) and that a barrier in the shape of a small pole and wire fence is wound round the trunk to protect the bark from further damage from grazing animals. This practice might well apply to the other mature trees in this paddock, which entomological studies suggest is probably relict pasture woodland- although now of much reduced quality. The presence of a rare weevil in the grassland around the tree (notes to follow) provides one clue both that 'improvement' has not been a significant factor in recent times and also that chemicals of any description ought not to be used in the paddock.

**Crambus pratella**

This little grass moth is local on rather dry grassy pastures where the turf is short.

**Conservation suggestions**

Found on the R.S.P.B. reserve, it is likely to find the current management regime, with its emphasis on shrub control and meadowland preservation, to its liking. The heavily used paths by the lake have broad short verges and so all looks well for this moth.

**Furucula bicuspis**

Alder Kitten

Recorded at the light trap of R.& A.Normand in their garden on the East fringe of the Sandwell Valley.

**Conservation suggestions.**

This moth was taken in a garden with a good wildlife area including birch and alder (larval foodplants). It is very probably found nearby in the open conservation areas by the river and the golf course where an abundance of these trees (many mature) exists. At present there is no threat likely to bring habitat change to the immediate locality- a situation which probably suits the moth and needs to persist.

**Cucullia absinthii**

The wormwood.

At the same locality as the Alder Kitten.

**Conservation suggestions.**

Wormwood and Mugwort, the foodplants of this moth, are characteristic of the tall herb areas in wastes and garden fringes throughout the Sandwell Valley and its environs. Several very local insects using these foodplants have already been recorded locally and the presence of the moth is an additional pointer to suggest the success of biodiversity retention by not 'tidying up' or spraying natural vegetation in the locality.



## Notes on Woodland Habitat Indicator Species

### Insects of significance in evaluation of woodland habitat in Sandwell Valley (2002)

#### Hoverflies as primary woodland indicator species in the Sandwell Valley

During the course of recent national ecological studies, a selection of 54 hoverfly species provisionally considered to be intimately connected with our older forests has been designated as indicators for such habitats. No British woodland contains all of them but some, such as the New Forest, host about 50. The insects fall into three categories and we have representatives from all three. It may well be that several of these flies become useful in future comparative studies to gauge how well an area is retaining species diversity.

The intention is to include list such as this in conservation notes so it is ready for management reference and can be updated in the manner of the rest of the document.

#### Sandwell Valley hoverfly primary woodland indicator species in 2002 ( Stubbs 1982)

Hoverfly	Status	Indicator level	Woodland
<i>Brachyopa pilosa</i>	Nationally Scarce	1	North Priory Wood
<i>Brachyopa scutellaris</i>	Local	2	Sot's / Priory Wood
<i>Brachypalpoides lenta</i>	Local	1	Priory Wood
<i>Chalcosyrphus nemorum</i>	Local	2	Priory Wood
<i>Criorhina berberina</i>	Local	2	Priory Wood
<i>Criorhina floccosa</i>	Local	3	Priory Wood
<i>Criorhina ranunculi</i>	Local	2	Priory Wood East
<i>Didea fasciata</i>	Local	1	Priory/ Park Farm
<i>Epistrophe grossulariae</i>	Local	3	Sot's /Priory Wood
<i>Epistrophe nitidicollis</i>	Local	2	Priory Wood
<i>Ferdinandea cuprea</i>	Local	2	Sot's /Priory
<i>Ferdinandea ruficornis</i>	Nationally Scarce	2	Sot's
<i>Mallota cimbiciformis</i>	Nationally Scarce	2	South Priory Wood
<i>Melangyna guttata</i>	Nationally Scarce	2	Sot's/ Priory Wood
<i>Melangyna triangulifera</i>	Local	3	Priory/Park Farm
<i>Pipiza luteitarsis</i>	Local	3	Priory Wood
<i>Sphegina clunipes</i>	Local	2	Sot's
<i>Sphegina kimakowiczi</i>	Local	2	Sot's
<i>Sphegina verecunda</i>	Local	1	Sot's
<i>Xylota sylvarum</i>	Local	3	Sot's/Priory Wood
<i>Xylota tarda</i>	Nationally Scarce	2	Park Farm Wood

The proportion of insects shown here relative to those in the full list are as follows:

**Category 1** ( Strong indicator of Primary Woodland) 4 out of 16.

**Category 2** (good indicator of Primary Woodland) 12 out of 27

**Category 3** ( weak indicator of Primary Woodland) 5 out of 11.

The indications are that the Sandwell Valley contains a surprising number of plant & insect species which have contrived to 'hang in' here as relics of a past where in all probability deciduous woodland, rich in species once existed. Some almost certainly depend upon continuity of specialised habitat in sufficient quantity to enable them to survive. The Sot's Hole Management Programme has encouraged clearance of Sycamore saplings, Japanese Knotweed and Himalayan Balsam, bringing about a return of many native woodland plants and potentially encouraging dependent native plants & invertebrates. The work done recently has additionally highlighted that Management planning (in Sot's Hole, Priory Wood and several associated sites) ought to identify some smaller subsites as a **primary biodiversity resource** where evidence points to this. **In such areas human interference should be strictly limited because we still do not know enough about the survival requirements of many of the more secretive creatures living there.**

Reference:

Ball,S. & Morris, R.K.A. 2001. **Provisional Atlas of British Hoverflies**. JNCC publication. 167pp.

**Beetles as primary woodland indicator species (THIS SECTION IS UNCHANGED FROM THE 2002 REPORT)**

Harding and Rose (1986) put forward a list of beetles which seemed to be good indicators of ecological continuity of dead wood habitats in older woodlands- especially pasture woodlands. This consisted of 196 mainly saproxylic beetles, again graded 1 to 3. It is possible to use records of these beetles in evaluation exercises such as production of indexes of ecological continuity . These work on a cumulative basis, because many of the beetles involved are extremely difficult to find and a combination of long term searching and use of experienced workers is necessary to succeed in producing sufficient data to make the approach worthwhile. For the record, the current list of indicator Coleoptera so far found in **Priory & Park Farm Woods** is given here. The whole business of indicator species selection is at present undergoing review.

**Table showing Park Farm & Priory Wood Beetle Species identified in Harding & Rose.**

<b>Beetle</b>	<b>Status</b>	<b>Saproxylic Fauna Group</b>
Sinodendron cylindricum	Local	3
Melasis buprestoides	Nationally Scarce	3
Triplax aenea	Local	3
Mycetophagus atomarius	Local	3
Bitoma crenata	Local	3
Tetratoma fungorum	Local	3
Orchesia undulata	Local	3
Abdera quadrifasciata	Nationally Scarce	1
Cossonus parallelepipedus	Nationally Scarce	3
Xyloterus domesticus	Local	3

Group 1 is considered to contain the strongest indicators and total scoring systems reflect this.

At present the score for Priory & Park Farm woodland (IEC or Index of Ecological Continuity) is 12.

Nationally this is probably a slightly above average value, but good for such a comparatively small woodland area (circa 15 hectares). Attingham Park (150 Ha) has 25 of species of these marker beetles and scores 35. The addition of another four beetles in the category might ascribe regional importance to the Sandwell site. **From the point of view of possible conservation rating & maybe funding in future, even in view of the provisional nature of the information in this paragraph, it is worthwhile to attempt further assessment of the beetle fauna with the possibility of significant additions to this list.**

**Reference**

Harding,P.T. & Rose, F. 1986. Pasture Woodland in Lowland Britain. Institute of Terrestrial Ecology.

This publication is a source of a baseline list of saproxylic coleoptera - there are several other publications which enlarge on the concepts. Currently K.N.A.Alexander (National Trust) is researching the whole area of woodland marker species.

**The Saproxylic Quality Index and Sandwell Valley Coleoptera**

In 1999 , Adrian Fowles and others produced a provisional list of 599 beetles defined as 'saproxylic' - associated with dead or dying wood and its various microhabitats- usually as found in over- mature, damaged or dead trees ( standing or fallen). The list contains beetles regularly found in these situations over a wide spectrum of woodlands in the British Isles.

The list is intended amongst other things, to provide those in countryside management with a yardstick to assess the quality of such habitats (currently nationally in severe decline) in sites under their control by commissioning survey or alternatively by using existing entomological data from the localities.

The paper explores difficulties inherent in survey and assessment of this sort. Old historical data is a particular problem as species found half a century or more ago may no longer be present. In general it concludes that a list of over 40 saproxylic species identified from a site in recent years provides an adequate threshold for a SQI evaluation. The Valley contains 50 species from the list and an index can therefore be calculated. The species and their SQI scores are now presented

**Table showing provisional SQI list of saproxylic Coleoptera of Park Farm & Priory Woods.**

<b>Family</b>	<b>Species</b>	<b>score</b>
Leiodidae	<i>Anisotoma humeralis</i>	2
Scaphidiidae	<i>Scaphisoma agaricinum</i>	2
Staphylinidae	<i>Siagonium quadricorne</i>	2
	<i>Gabrius splendidulus</i>	1
	<i>Sepedophilus littoreus</i>	2
	<i>Sepedophilus lusitanicus</i>	2
	<i>Homalota plana</i>	2
	<i>Dinaraea aequata</i>	1
Lucanidae	<i>Dorcus parallelipipedus</i>	2
	<i>Sinodendron cylindricum</i>	2
Scarabaeidae	<i>Trichius fasciatus</i> *	2
Elateridae	<i>Denticollis linearis</i>	1
Eucnemidae	<i>Melasis buprestoides</i>	4
Cantharidae	<i>Malthinus flaveolus</i>	1
	<i>Malthodes marginatus</i>	1
Anobiidae	<i>Ptilinus pectinicornis</i>	1
Melyridae	<i>Malachius bipustulatus</i>	1
Nitidulidae	<i>Soronia grisea</i>	2
Rhizophagidae	<i>Rhizophagus bipustulatus</i>	1
	<i>Rhizophagus dispar</i>	1
	<i>Rhizophagus perforatus</i>	2
Erotylidae	<i>Triplax aenea</i>	2
	<i>Dacne bipustulata</i>	2
Cerylonidae	<i>Cerylon ferrugineum</i>	2
Endomychidae	<i>Endomychus coccineus</i>	2
Cisidae	<i>Octotemnus glabriculus</i>	1
	<i>Cis boleti</i>	1
Mycetophagidae	<i>Litargus connexus</i>	2
	<i>Mycetophagus atomarius</i>	2
	<i>Mycetophagus quadripustulatus</i>	2
Colydiidae	<i>Bitoma crenata</i>	4
	<i>Aulonium trisulcum</i>	16
Tenebrionidae	<i>Corticeus bicolor</i>	8
Tetratomidae	<i>Tetratoma fungorum</i>	2
Salpingidae	<i>Rhinosimus planirostris</i>	1
	<i>Rhinosimus ruficollis</i>	1
Pyrochroidae	<i>Pyrochroa serraticornis</i>	1
Melandryidae	<i>Orchesia undulata</i>	4
	<i>Abdera quadrifasciata</i>	16
Scraptiidae	<i>Anaspis humeralis</i>	2
	<i>Anaspis rufilabris</i>	1
Cerambycidae	<i>Grammoptera ruficornis</i>	1
	<i>Rutpela maculata</i>	1
	<i>Clytus arietis</i>	1
Curculionidae	<i>Cossonus parallelepipedus</i>	8
Scolytidae	<i>Scolytus multistriatus</i>	1
	<i>Scolytus rugulosus</i>	2
	<i>Scolytus scolytus</i>	2
	<i>Leperisinus varius</i>	1
	<i>Xyloterus domesticus</i>	2
<b>27 Families</b>	<b>50 species</b>	<b>Total126</b>

\* seen whilst the author was taking a guided walk by M5 motorway and photographed as it visited Hogweed. R. Key considers it to be a possible import. No further specimens have been reported since this solitary record.

#### **Analysis**

The scoring system is based on the rarity of the species on a national and regional scale ranging from 1 (nationally common) to 32 (most Red Data Book categories). A glance at the species list suggests that it reflects the history of the Sandwell Valley woodland. Isolated species from several families rich in saproxylics have managed to survive (probably precariously in several cases) as human activity of all kinds has affected the area on a regular basis.

**The SQI (total of the scores for all qualifying species divided by the total number of qualifying species and multiplying by 100) is 252.**

The reader is reminded that evaluations of the sort carried out here are as yet in their infancy. Information is continually being fed into the system to produce more precise tools and it may be that data here becomes a part of this process.

**It is also necessary to emphasise that those who collected the beetles are not specialists on the group and will certainly have missed other species which had they been added might have raised or lowered the score.**

**At this juncture it is possible to say that the SQI score reinforces the related evaluation in section 5.2. It is probably fair to add that in a Birmingham and Black Country context, Priory & Park Farm Woodlands are good sites for saproxylic species. To our knowledge they are the first to be so evaluated in the immediate area but there is little doubt that other nearby Sites such as Sutton Park, will be accorded regionally important status when survey is complete there.**

#### Reference

Fowles, A.P., Alexander, K.N.A. & Key, R.S. (1999) The Saproxylic Quality Index: evaluating wooded habitats for the conservation of dead-wood Coleoptera. *Coleopterist* 8 (3) p. 121-141.

#### **Saproxylic invertebrates and site evaluation in Birmingham & the Black Country**

In the light of the information in section 5, a few concluding comments are offered. Of particular importance is information gathering for effective assessment to be possible. Data gathered for the exercises above took in the region of twenty years to accumulate. It is arguable that specialist collectors would have taken very much less time to have discovered these marker species. The club's efforts demonstrate that a set of individuals on site, learning the necessary skills, observing on a regular basis and visiting on sufficient different occasions, have a chance of finding a good proportion of them.

Managers wishing to carry out such assessments on sites in Birmingham & the Black Country have probably either the option of bearing the costs of bringing in specialists to produce results over a relatively brief time scale, or relying on the activity which generated data here. **In the context of the very real threat to saproxylic species and the relatively small number of candidate sites, the first option ought to be chosen - after preliminary visits by specialists to assess those most at risk and/or with potential species richness that will make the work worthwhile.** A word of caution is in order here in that Park Farm & Priory Woods were not rated particularly highly on one such preliminary visit, but extended study mentioned above, has revealed added value!

It remains to be seen which other groups will provide reliable saproxylic marker species to supplement the studies above. Again, the work of SANDNATS has potential significance with regard to species of animals and plants on record for the locality. Certain Lepidoptera are in line for similar treatment (over 500 species recorded) and a number of key ones are likely to be at least as conspicuous as beetles and flies! It is probable that over the course of time, reliable site assessments may well be carried out on the basis of much smaller lists of key invertebrates from diverse groups. For this to become a reality, evaluative studies and surveys have to be encouraged so data comes forward in sufficient quantity. Ultimately this will enable **important habitat at risk to be much more rapidly & readily identified.**

## **7. The butterflies of the Sandwell Valley (2015)**

Recent years have seen the publication of much information on the distribution of butterflies in the West Midlands (Butterfly Conservation Publications). It is therefore seen as appropriate to include here the species of this popular group of insects definitely recorded in the Sandwell Valley with notes on current status. All probably deserve to be regarded as ‘scarcer insects’.

<b>Family</b>	<b>Species</b>	<b>Common Name</b>	<b>Distribution (SV)</b>
Hesperiidae	<i>Thymelicus sylvestris</i>	Small Skipper	General
	<i>Thymelicus lineols</i>	Essex Skipper	RSPB
	<i>Ochlodes venata faunus</i>	Large Skipper	General
	<i>Erynnis tages</i>	Dingy Skipper	RSPB
Pieridae	<i>Colias croceus</i>	Clouded Yellow	General
	<i>Gonepteryx rhamni</i>	Brimstone	General
	<i>Pieris brassicae</i>	Large White	General
	<i>Pieris rapae</i>	Small White	General
	<i>Pieris napi</i>	Green-veined White	General
	<i>Anthocharis cardamines</i>	Orange Tip	General
Lycaenidae	<i>Celastrina argiolus britanna</i>	Holly Blue	SV Woodland
	<i>Strymonium w- album</i>	White Letter Hairstreak	Tame Valley Canal
	<i>Quercusia quercus</i>	Purple Hairstreak	SV oak woods
	<i>Lycaena phlaeas</i>	Small Copper	General
	<i>Aricia agestis</i>	<b>Brown Argus</b>	<b>REMOVED (note below)</b>
	<i>Polyommatus icarus</i>	Common Blue	General
Nymphalidae	<i>Vanessa atalanta</i>	Red Admiral	General
	<i>Cynthia cardui</i>	Painted Lady	General
	<i>Aglais urticae</i>	Small Tortoiseshell	General
	<i>Inachis io</i>	Peacock	General
	<i>Polygonia c-album</i>	Comma	General
Satyridae	<i>Pararge aegeria</i>	Speckled Wood	SV Woodland
	<i>Lasiommata megera</i>	Wall	General (last seen 1993)
	?? <i>Melanargia galathea</i>	Marbled White	RSPB/Railway
	<i>Pyronia tithonus britanniae</i>	Gatekeeper	General
	<i>Maniola jurtina</i>	Meadow Brown	General
	<i>Coenonympha pamphilus</i>	Small Heath	General
	<i>Aphantopus hyperantus</i>	Ringlet	Damp grassland

### **Notes**

The current Valley count is likely to be 27 confirmed species (see notes on Marbled white).

Several species such as the Grayling (two separate sightings over 20 years ) and Silver Washed Fritillary (I thought I saw it on Europa Field during the very hot summer of 1995 ) are not included because of lack of corroborative evidence in the shape of regional records during this time.

Additions in 2002 included the Dingy Skipper. The former has been steadily spreading in the area for some years although still thinly distributed. We are indebted to Mr Owen Tudor (a well known local lepidopterist) for turning his attention to the RSPB sector of the Sandwell Valley during that year and making this discovery. Subsequent years have not seen any additional records of this species so we are uncertain of its establishment here. The reserve and adjoining grassland might still host Marbled White, but the absence of recent records is a concern. There have been no post 2004 sightings so the colony may be lost.

The continuing absence of the Wall butterfly seems to reflect the national trend.

The most recent addition was that of Essex skipper (August 2008) when observers saw a number on the RSPB reserve and obtained very good macro-photographs of the antennal character.

A watch should be kept for White Letter Hairstreak in Priory Wood because this species has now appeared on the Tame Valley Canal (recorded by P.Hackett RSPB) and appears to be re-establishing itself (regenerated elm) on a number of sites in the region.

### **Footnote**

*In 2015 the club published ‘Butterflies and Moths of the Sandwell Valley’. During the process of verification, it was discovered that the Brown Argus record could not be substantiated. I checked with Mr Owen Tudor and he certainly did not include it in his 2002 record list when he visited.*

## General conservation notes

With the foregoing in mind, it seems prudent at present to envisage a set of general considerations **safeguarding habitats** rather than selected species (unless the conservation suggestions for these indicate a highly specific practice as necessary to ensure survival). Examination of the records of rare and notable species uncovered in the locality does provide some pointers that may help.

- The importance of **informed** ecological management over time enables key elements of the flora and fauna to be retained and encouraged. **A few small areas should be left completely undisturbed if possible. Currently such an area exists in the Priory Pool area where a number of important old trees are conserved. Elsewhere, near Park Lane, the ancient horse chestnuts, the adjoining pylon paddocks, wildflower meadow and the Power line ride heather area are all the subject of such carefully targeted management plans. In these areas important Nationally Scarce insects such as the Yellow-legged Clearwing Moth are found. Other important areas are Park Farm Wood where some old grey poplars are conserved because of their specialised insect fauna and Sot's Hole Damp Woodland which hosts a very interesting range of specialised craneflies.**
- **Species composition** is an important consideration. In the course of time, a certain balance has been achieved and local sites house characteristic assemblages of plants and animals. Management has to take into account the extent to which species control (Sycamore, Rhododendron, Japanese Knotweed, Magpie etc) affects the existing assemblages. Recent work on Grey Poplar has given a chance for some of these issues to be investigated in a little more detail.
- The issue of **age structure in plant communities** is an important one. With regard to woodland, a balanced approach ensures perpetuation by regeneration of species well suited to the area, but also ensures that the oldest and largest trees with the potential to support a wide range of associated species are conserved, along with the important dead wood habitats.
- **The extent of new plantings and introductions should always be carefully balanced against the needs of existing natural communities.** Excessive tree planting and shrubbing up can be harmful to wildlife diversity in some habitat types. Some species of bees and wasps actually depend upon the existence of bare sand/ earth habitats.
- **Delineation and maintenance of good footpaths and dedicated rights of way** in the Valley is an important advance and can prevent unwanted desire lines appearing in sensitive areas. **The accidental loss of important species is always of concern where areas of distinctive habitat are relatively small.**
- **Ensuring that the appropriate site is allocated for specific community events is very important.** In overall terms this has been successfully done, but critical examination of new demands on the Valley in this respect is an ongoing necessity.
- **Emphasising the importance of regularly updating floral & faunal information.** It is the first duty of any wildlife assessor to collect this data because it enables some empirical interpretation and ranking of sites to be possible. As may be seen from the foregoing information, some invertebrate groups are already just becoming useful in rating systems. Others will almost certainly be found valuable in this respect during the future as data accumulates. The lists also have an intrinsic value in current national assessments of the health of biodiversity.