

A bi-annual newsletter focussing upon the study of insects and other invertebrates in the county of Shropshire (V.C. 40)

October 2010 (Vol. 2) Editor: Pete Boardman pete@field-studies-councl.org

~ Welcome ~

Thank you to everyone who commented on our first *Shropshire Entomology* newsletter that we circulated back in April this year. It was so pleasing to find it so well received and we hope this edition is welcomed equally warmly.

The deadline for submission for the third newsletter is **Friday March 4**th **2011** with a publication target of the beginning of April.

A very big thank you to everyone who has contributed to this newsletter!! Please feel free to pass this on to anyone who you think might enjoy reading it, and if you haven't thought about submitting an article for a future issue – please consider it – the more people who submit articles the more likely it is to continue.

Please note the details of two forthcoming invertebrate days in our region, firstly the **Worcestershire Entomology day** to be held at the brand new Wyre Forest Community Discovery Centre on the 6th November 2010 (booking form and programme details are included at the end of this newsletter) and the 2nd **Shropshire Entomology day**, once more to be held at Preston Montford Field Centre on Saturday 19th February 2011 (see advert).

STOP PRESS

We have just heard that the FSC bid for a 3 year project concentrating upon the identification and recording of invertebrates in Shropshire and the wider West Midlands region has been accepted for funding by the Heritage Lottery Fund!!!!!! **INVERTEBRATE CHALLENGE** will launch sometime very early in 2011. More details will be included in the next edition of Shropshire Entomology!!!!! To register your interest please email your details to; **invert@field-studies-council.org**

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The Enchanter's Nightshade bug Metatropis rufescens (Herrich-Schäffer, 1835) in Shropshire

A chance find by one of the attendees on Nigel Jones' fly event at Cole Mere Country Park on 23rd June 2010 led me to identify and then carry out a little project on this rather wonderful little stiltbug (Berytidae) previously unknown to me.



Metatropis rufescens (Pete Boardman)

I identified the bug using the excellent British Bugs website (www.britishbugs.org.uk) as *Metatropis rufescens* (Herrich-Schäffer, 1835), which is listed as common and associated with Enchanter's Nightshade *Circaea lutetiana*. The website states the bug can be found potentially all year but I imagine chances are improved when the weather is suitable and when the Enchanters Nightshade plants are flowering.

The SEDN database showed three previous records for Shropshire, all from Wenlock Edge (Blakeway Coppice & Easthope Wood) in past Julys and so the Cole Mere record indicated the species was more geographically widespread than the database suggested.

Over the following couple of weeks I took every opportunity to search for the bug wherever I came across stands of Enchanter's Nightshade to see if I could familiarize myself with its habits. My first success was on July 8th where I found the bug sat on leaves of its host plant at Roman Bank along Wenlock Edge. It took about an hour

to locate an individual amongst the densest stands of the plant by stooping over them and slowly scanning for the insect – (and then a further hour to find my dog that had used the opportunity to run off into the woodland bored with bug spotting). I opted not to use a sweep net as I considered that the damage to the delicate plants to be a high risk.

The following day I found the bug adjacent to an area of recent coppice at the Severn Valley Country Park at Alveley. Again it took over an hour to locate a single bug amongst the plants, though my dog stayed at home that day! The next locations were near to Highley, at New England and along the Jack Mytton way near Billingsley, both on the 20th July after twenty to thirty minutes searching.



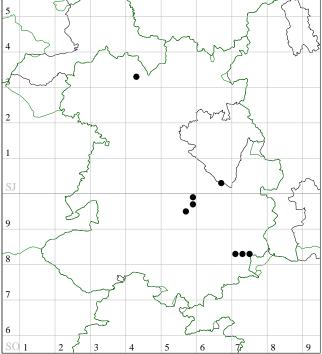
Metatropis rufescens (Pete Boardman)

The final sightings were in two different parts of Benthall Edge Wood on the 24th July. On all but the final occasion only single bugs were encountered and no interactions were noted between bugs or other insects, or bugs and the plants. I observed the species to be reasonably sedentary but upon disturbance, bugs mostly

walked around to the underside of a leaf and hid, though at Benthall Edge one took to the air and flew approximately two metres where it sat on a tree leaf.

I failed to find the insect in what I classed as very suitable habitat at The Novers Quarry near Clee Hill on 22/7/10.

Metatropis rufescens



Updated SEDN distribution of *Metatropis rufescens* as of August 2010

If you come across the bug or have any records of it please send them to me for inclusion in the SEDN database.

Pete Boardman

Finding species of Diptera new to Shropshire

In many counties Diptera (true flies) are little studied, so that the opportunity for finding species previously unrecorded in those places are many. In Shropshire this is doubly so. Apart from the efforts of Cyril Pugh in the 1930's – 1950's, there had been hardly any sustained

recording effort until Pete Boardman and myself began to take a closer interest in Diptera. Each year we are able to report new species to add to the list for vice county 40, and 2010 has been no different. The following are three highlights from the year.

Hydromyza livens (Fabricius, 1794) – the water lily mining fly

Sometimes a species may be widespread but remain undetected because its habits are such that entomologists just do not come across it. One such case is the rather distinctive Scathophagid fly, Hydromyza livens. Apart from records in the New Forest and from East Anglia, this fly is known from very few localities in Britain. H livens is a leaf-miner in water lily Nuphar spp. and it spends its entire life cycle in the leaves and petioles as a larvae, or on the leaf surface as an adult. Thus, to find the fly one has to make a concerted effort to get out to water lilies, which in many instances are actually quite difficult to reach, as they usually grow in squelchy mediums at some distance from the shore of water bodies. Not the usual haunt of the Dipterist!

Dan Wrench let me know that he was taking a boat out onto Colemere on 29 July to record a "plant of the month" radio item about the Least Water Lily. I alerted Dan to the possibility of *H. livens* being present.

Dan managed to snap some fuzzy photos, taken at very long range, of a stout looking fly he saw wandering about on the lily pads. We were able to compare these with photos on the www.diptera.info website and concluded that this must be the fly in question.

In the following weeks, encouraged by this find, Pete Boardman checked out water lilies on The River Rea at Attingham Park and managed to get even clearer photos of the fly.

Next, as part of the Shropshire Invertebrates Group field trip to Crosemere, I managed to capture an individual fly so that we had absolutely conclusive evidence that the fly is present in Shropshire.



Hydromyza livens (Pete Boardman)

Following on from these discoveries Pete and I have located *H. livens* at the Prees Branch Canal and Berrington Pool, and then Mark Duffell passed Pete a yellow water lily leaf covered in *Hydromyza* leafmines that came from the Newport Canal. Mark also reported seeing lots of flies active on the leaves on 1 September.



Hydromyza livens pair in cop by leafmine on Yellow Water Lily (Pete Boardman)

This brought the total number of known Shropshire sites for *Hydromyza* to six, marking out Shropshire, for the time, as a good stronghold for the fly, but it is bound to be more widely distributed across Britain - it just needs searching for!

Hydromyza livens is easy to identify, if you can get a good enough view of it, as it has a bright yellow-orange face with strongly contrasting deep black antenna. In addition, the leaf mine is quite distinctive, starting as a thin mine near the centre of a leaf, widening in an elegant semi-loop which widens as it approaches the petiole. The larvae exit the leaf, from where they enter the petiole, where they remain until they emerge the following the season.

Rhamphomyia physoprocta Frey, 1913 (Empididae)

I visited Brown Moss on 3 July where interesting flies were proving very difficult to find, the weather having been very dry, and thus not conducive to flies, for some months preceding. So in desperation to find some treasure to take home for study, I swept my net through a low flying swarm of tiny Empid flies at the edge of a tongue of shallow water. I pooted up three specimens and released the rest. Apart from quickly identifying the flies as belonging to the genus Rhamphomyia, I only half expected to be able to identify these 3mm length flies to species, but on getting them under the microscope the males were revealed as having spectacular and enormous genitalia in the shape of two huge globes, side by side.



Rhamphomyia physoprocta (Nigel Jones)

These were an extremely distinctive feature, so rather than wading through Collin's excellent but lengthy key to Rhamphomyia species (Collin 1961), I decided to post a photo of the fly to the diptera.info website and almost immediately got a definitive response from Paul determining the fly as Rhamphomyia physoprocta. In the UK this is regarded as a very scarce fly and is listed as red data book status. It was only known from very few sites in the New Forest and Dorset until the 1990s, since when there have been several discoveries from sites in Norfolk. Cambridgeshire, Oxfordshire. Buckinghamshire, Yorkshire and Stirlingshire. It appears to have a strong association with wetlands, but its larval habits remain unknown.

Paracraspedothrix montivaga Villeneuve, 1919 (Tachinidae)

This is another tiny fly (its tongue twisting name somewhat belies its diminutive size) that could easily elude detection. During the Shropshire Invertebrates Group field meeting to the Nesscliffe military training area I vigorously swept through vegetation in a damp wooded glade and spotted two very small flies in the net, which with their characteristic habit of holding their stout antenna firmly out in front of them, could, despite their size, readily be categorised as Tachinidae, a family of parasitic flies that I am always keen to collect. These turned out to be Paracraspedothrix montivaga, a species noted as new to the UK in 2001. Since 2001 it has been recorded on several occasions across the UK, as far north as Lancashire and into north Wales, including some specimens taken in 1999, but remaining unidentified until recently. Its presence over such a wide area over such a short period of time is intriguing, as the recording scheme have been unable to unearth any old specimens in collections, so it genuinely appears to have arrived in the UK in about 1999-2000 and is not just a very small fly that has been overlooked. It appears to have arrived recently and spread across the UK very rapidly. To add to the notion that this fly is spreading quickly across the UK I swept a further specimen from Ash trees in my garden in late September.

Reference: Collin, J.E. (1961), Empididae - British Flies, Volume 6; University Press, Cambridge

Nigel Jones

A further record of the Snow Flea *Boreus hyemalis* (Linnaeus, 1767) in Shropshire

Following Caitlin Davies and Caroline Uff's article in the first Shropshire Entomology newsletter a further record of the snow flea has come to light for the county. Harry Green very kindly sent me the newsletter of the Worcestershire Biological Records Centre and Worcestershire Recorders - Worcestershire Record, detailing both male and female snow fleas found on a clump of moss within the Shropshire part of the Wyre Forest by Wyre Forest Study Group members. The animals were found on December 2nd 2009 in Withybeds Wood on the north side of the Dowles Brook and reported by Rosemary Winnall in the 2009 Wyre Forest Study Group Review. Prior to this and the recent record the only other record in the SEDN database was from The Long Mynd recorded during the 1950's, unless you know differently?

Pete Boardman

Identifying Plume Moths

Of all the British micro-moth families, the Plumes (Pterophoridae) alone lack a current comprehensive British identification guide. There is a European work by Cees Gielis, *Microlepidoptera of Europe: volume 1 Pterophoridae*, Apollo Books (1996) which does cover all the British fauna and is well illustrated, but it is expensive, technical and much of it is not

relevant to the UK. The old Wayside & Woodland volume by Beirne, Bryan P. (1952) British Pyralid and Plume Moths, Frederick Warne, is now available as a CD-ROM produced by Pisces Conservation in Adobe Acrobat format for Windows PCs and Macs. It is very dated, however, omitting some species recently added to the British list, and the illustrations are not particularly good. Progress in identifying a Plume moth can be made using Chris Manley's book British Moths and Butterflies: A Photographic Guide plus the UK Moths website, but in the absence of a comprehensive account I have put together my own aid, which I hope readers will find helpful.

The table below (table 1 - see page 20-21) gives key information to help narrow down a specimen of Plume moth, and the field identification notes are intended as a rough-&ready guide to those species with more obvious field identification features. I would welcome any feedback from anyone who uses these identification tips.

Some field identification features;

Whitish; pentadactyla, galactodactyla

Pale cream or yellowish; pallidactyla, tetradactyla, carphodactyla, chrysocomae, microdactyla, Merrifielda spp

Light brown; distans, rhododactyla, ochrodactyla, pallidactyla, osteodactylus

Large dark wedge on forewing costa; Platyptilia spp.

White band across wing at base of forewing cleft; paludum, britanniodactyla, lunaedactyla, Oxyptilus spp. (lithodactyla)

Hindlegs with dark + light pattern: parvidactylus, britanniodactyla, rhododactyla,

Amblyptilia spp., Platyptilia spp., Oxyptilus spp. (lithodactyla)

Scale tufts on tibia; Oedaematophorus spp.

Very small; aridus, paludum, microdactyla

Godfrey Blunt

News from Butterfly Conservation

This spring, Butterfly Conservation became more active in the Shropshire Hills area, with two separate target species and habitats.

Mike Williams started recruiting and training volunteers in identifying and recording Wood Whites and their foodplants in a number of woods across the Clun valley and near Ludlow, as the latest part of the Midland Fritillaries Project, 'Conserving the Wood White in the South Shropshire Woods' swung into action. This is a joint project between Butterfly Conservation and the Forestry Commission (FC) funded by SITA Trust. It is aimed at increasing populations of the Wood White butterfly through targeted management at a landscape level. All the project sites are FC plantations, about two-thirds of which are former ancient semi-natural woodland sites. This project is also important in a national context as a recent national sites dossier for the Wood White has shown that less than 50 sites remain with over 50% of these being FC sites.

The Wyre Forest area

In the Wyre Forest area the SITA Trust funded Back to Orange Project (which has been focussed on the conservation of the fritillaries of the Wyre Forest) is just now coming to an end (Autumn 2010). This collaborative project (a partnership between Butterfly Conservation, the Forestry Commission and natural England) has allowed a management programme to take place in six key areas of the forest where the work has focussed

improving habitat for Pearl-bordered Fritillary and other species (such as the Wood White). Work has consisted of ride widening (especially on south-facing banks), scallop creation, clear-felling, scrub removal and fencing to allow livestock grazing. The project has also allowed monitoring projects to take place (both in terms of vegetation and Lepidoptera) which have clearly showed the success of this work as well as identifying new areas that are important for fritillaries. Research work was also included in this project and consisted of an experimental liming programme (which appears to have been successful) and the setting up of a long term programme to assess the effects of PAWS (Plantations on Ancient Woodland Sites) restoration on Lepidoptera. The Forestry Commission have been a key delivery partner in this work which has resulted in machines such as brash balers and stump grinders being involved in some of the management work which will hopefully result in good long term outputs. One final purchase using Back to Orange money was a cut and collect mower which is already being used by both Natural England and the Forestry Commission to improve the management of some areas.

The results of this work have been:

- Large increase in the numbers of Wood White at Hurst Coppice in 2010 (which was the first project site worked on) with the first signs of Wood White starting to disperse elsewhere in the forest
- Hugely improved numbers of Pearlbordered Fritillary on the Forestry Commission Longdon Pipeline in 2010 with all the scallops created as a result of project work supporting good habitat and being occupied.
- Good evidence that Pearl-borderedfritillary, Small Pearl-bordered Fritillary, Dingy Skipper and Drab Looper have

rapidly moved into project work areas close by but not adjacent to sites where they are already established. Pearl-bordered Fritillary have already colonised two areas of Longdon Wood created by project management work and there is now the anticipation that further project work areas (those done towards the end of the project) will be colonised by this butterfly next year.

 Grazing introduced into one site within the forest (the Great Bog) with the habitat already improving after one year and good numbers of Small Pearl-bordered Fritillary subsequently recorded here in 2010.

As part of the larger HLF funded Grow with Wyre Scheme, 6 butterfly identification training courses have been run (3 in 2009 and 3 in 2010) with the aim of getting more local people out recording butterflies in the forest. This has been hugely successful with lots of people attending the courses, and over 20 volunteers undertaking more than 30 volunteer site recording visits in 2010 (with very few occurring prior to these courses). Three transects are now also running in the Wyre Forest (as opposed to only 2 in 2009).

Another Year on Prees Heath

It is now 4 years since Butterfly Conservation bought the western half (60 hectares) of Prees Heath Common. This year saw many visitors to the reserve from far and wide, principally of course to see the colony of Silver-studded Blue butterflies.

A single species transect for the Silver-studded Blues has been walked since 1991, and the overall trend, allowing for good years/bad years, shows an increasing population. This year proved to be another very good year, with the earliest emergence yet recorded (11th June). In certain areas of the reserve, especially where the vegetation is very low, numbers quickly peaked,

and at an Emergence Walk from 8.00am to 10.00am on Wednesday 29th June those present were fortunate enough to see several hundred Silver-studded Blues fluttering low over the heather and trefoil at the far end of the old airfield runway. In addition, at least 20 Silver-studdeds were seen and photographed in the act of emergence, with black ants crawling over them to feed on sugary fluids, and frequently falling off, as the butterfly pumped up its wings before flying off to find a mate. All in all, a spectacular wildlife sight, and one difficult to rival I would suggest anywhere in the Midlands.

Those familiar with the site will know that a major, long-term heathland re-creation project is ongoing on the former arable areas, in fact the biggest of its kind using a soil inversion technique in the UK. As I write this piece the Hangars Field is now showing large swathes of common heather, Calluna vulgaris in flower less than three years after it was seeded by heather brash imported from Cannock Chase. Getting the other species of heather to be found on Prees Heath, bell heather, Erica cinerea, to establish itself has proved more problematic. Of the 20,000 bell heather plug plants planted by volunteers last autumn we reckon 60% have survived (not a bad rate), but many of those have been well nibbled by the rabbits. There does not appear to have been any significant germination yet of all the bell heather seed hand harvested and broadcast by the volunteers, but there is still hope! In a project as challenging as this, we just have to keep on trying. Heather seedlings are now also to be seen on the restoration area on the other side of the runway. The field on the south side of the access track was deep ploughed in March this year and steps are in hand to repeat the treatments here deployed elsewhere on the reserve.

Jenny Joy & Stephen Lewis

Many thanks to Jenny Joy of Butterfly Conservation for sending me recent news from the county. This is an abridged version of the Shropshire Butterfly Group newsletter – for the full version please contact Jenny (details in the County Recorder network section).

Bees in Shropshire

Shropshire boasts a wealth of habitats which provide a rich resource for aculeate Hymenoptera - bees, wasps and ants. Of these, lowland and upland heath, limestone quarries, sand quarries, and open woodland have proved to be the most productive.

If the following resources are available at a site then there is potential for a good assemblage of species;

- 1. Aerial nesters require dead wood, preferably standing, along woodland edge or hedgerow in sunny, sheltered situations.
- 2. Soil nesters need bare or short turf with a southerly aspect.
- 3. All bees require quality forage areas flower rich well structured grassland/woodland edge/rides/glades and hedgerows etc.

It is important to remember that bees are surprisingly opportunistic and will use sites or parts of sites that do not appear to offer much quality at all in terms of forage or nesting.

We (Nigel Jones & I) have surveyed a large number of sites over the past 10 or so years throughout the county and to date have recorded **142 species of bee**. (123 solitaries & 19 social). Each site has been visited on a number of occasions, those that appeared to have good potential on a more regular basis.

A number of sites have produced great results helping to build up the picture of what we know of Shropshire's aculeates, but below are the top 6 sites to date. The species listed with each site are some of the highlights. The number of species relates to all aculeates, not just the bees. I am hoping to write up an article concerning the wasps in the next newsletter.

(* - It should be noted that the species list for Morville Quarry is based only on 5 recording visits and in my opinion offers the potential of being the "best" site in the county given more visits).

The species mentioned are some of the highlights, nationally scarce or above in terms of conservation importance.

- 1. **The Cliffe. 130 species.** Lowland heath with surrounding birch and oak woodland. *Andrena apicata, Nomada flavopicta, Stelis punctulatissima.*
- 2. Lyth Hill. 105 species. Open grassland, remnant heath and oak woodland. Andrena apicata, A. humilis, A. trimmerana, Sphecodes crassus, Sphecodes niger, Nomada flavopicta, Nomada guttulata.
- 3. **Morville. 80* species**. A disused sand quarry with surrounding hedgerows. *Hylaeus signatus, Andrena bimaculata, Nomada fulvicornis, Megachile maritime, Sphecodes niger*
- 4. **Brokenstones. 99 species.** Rural garden close to mixed woodland and permanent pasture. *Andrena apicata, Nomada guttulata, Melitta haemorrhoidalis, Sphecodes crassus.*
- 5. **Wenlock Edge Lea North. 87 species.** A large limestone quarry, although all of the records are from along a stretch adjacent to the mature woodland.

Andrena apicata, Osmia bicolor, Stelis ornatula.

6. **Discovery Centre. 78 species**. A mosaic of habitats including flower rich grassland, scrub and woodland. *Sphecodes crassus*, *Eucera longicornis*, *Stelis phaeoptera*

The 142 species (2010), recorded from Shropshire, compare well with what is known from surrounding counties. The figures in brackets are the dates when the species lists were last updated;

- Worcestershire 132 (2006)
- Staffordshire 134 (2002)
- Warwickshire 136 (2005)

The British bees are classified from Family (1) through Sub-families (6) to genera (28) and finally species.

We are fortunate enough to have 22 of the 28 genus and members from all of the sub-families! This offers the chance to study/observe the multitude of different lifestyles that make the bees such a fascinating group of insects to learn about.

Below is a graph that shows the 22 genera and in brackets the number of species represented in each from what we have recorded in Shropshire so far.

Genus	Ground nesters	Aerial nesters	General information
Hylaeus (6)	#	#	Usually forage
			from a range of plants although <i>H</i> .
			signatus is closely associated with weld.
Colletes (3)	#		C. succinctus
			forages mainly
			from heathers with
			the other species
			choosing plants in
			the daisy family.
Andrena (37)	#		Most species forage

			fuona
			from a range of plants although some are very specific. <i>A. apicata</i> from <i>Salix</i> for example.
Halictus (2)	#		Both Shropshire species forage from a variety of plants and interestingly can be either solitary or social.
Lasioglossum (17)	#	#	As above.
Sphecodes (11)	#		Cleptoparasites. Lasioglossum and Halictus are the host for most of the Shropshire species, although S.pellucidus is associated with Andrena barbilabris.
Melitta (2)	#		M. haemorrhoidialis forages from bellflowers, M.leporina from clovers and vetches.
Anthidium (1)		#	Associated with labiates. Known as the wool carder bee.
Stelis (3)		#	Cleptoparasites. Associated with Osmia, Anthidium and Hoplitis.
Heriades (1)		#	This species is restricted to the extreme south-east corner of England! Associated with ragwort. Nigel Jones' garden!
Chelostoma (2)		#	C. florisomne forages at buttercups and C. campanularum at bellflowers
Osmia (5)	#	#	Four of the Shropshire species

			forage from a
			U
			variety of plants. O.
			parietina is
			associated with
			birds-foot trefoil
Hoplitis (1)		#	Forages from a
			variety of plants
Megachile (5)	#	#	Leaf-cutter bees.
			Collect pollen from
			a range of flowers
Coelioxys (2)		#	Cleptoparasites.
J . ,			Associated with the
			genus Megachile
Nomada (19)			Cleptoparasites.
102211111111111111111111111111111111111			Usually associated
			with Andrena bees
			but one species <i>N</i> .
			flavopicta is found
			,
Engalus (2)	ш		on Melitta species
Epeolus (2)	#		Cleptoparasites. In
			Shropshire E.
			cruciger is on
			Colletes succinctus
			and E. variegatus is
			probably on C.
			daviesanus
Eucera (1)	#		Forages at vetches,
			especially meadow
			vetchling
Anthophora	#	#	A.plumipes is a
(2)			spring species, A.
			furcata a summer
			one. Both are
			associated with
			labiates
Melecta (1)		#	Cleptoparasite. Its
			host is Anthophora
			plumipes
Bombus (18)	#		Bumblebees. 12 are
(20)	mostly		social and 6 are
	litootiy		"social parasites"
Apis (1)	Hives	#	The honey bee.
11P13 (1)	111162	π	The noney bee.

A large number of the species recorded within the county are considered to be common or widespread, but we do have a number of nationally important species. The status of the given species, apart from the BAP species, is taken from the Archer status values for the Solitary Wasps and Bees. (BWARS newsletter, Autumn 2007).

This is a more up to date account, when compared to other publications, of what is known country wide from all of the records held by the Bee Wasp and Ant Recording Scheme (BWARS)

• 5 BAP species – Andrena tarsata, Osmia parietina, Eucera longicornis, Bombus humilis, B.ruderarius



Eucera longicornis (Rosemary Winnall)

• 3 Very Rare – Stelis phaeoptera, Nomada guttulata, N. signata



Stelis phaeoptera (Nigel Jones)

- 3 Rare Stelis ornatula, Nomada integra, N. obtusifrons
- 18 Nat. Scarce Hylaeus pictipes, H. Signatus, Andrena apicata, A. bimaculata, A. bucephala, A. humilis, A. nigriceps, A. tibialis, A.trimmerana, A. varians, Sphecodes crassus, S. ferruginatus, Melitta haemorhoidalis, Stelis punctulatissima, Osmia bicolor, Nomada flavopicta, N. fulvicornis, N. hirtipes

I will consider 2 species here, one *Osmia bicolor* first recorded this year (2010) at Lea North, Wenlock Edge and the other *Nomada guttulata* from Brokenstones and Lyth Hill.

Osmia bicolor

This beautiful bee is considered to be a nationally scarce species although it occurs widely in the south of England.



Osmia bicolor (Tristan Bantock)

It makes its nest in empty snail shells using chewed leaves to separate the individual cells each of which contain a single egg. When the nest is finished it is covered with debris to give it some protection from predators. Pollen is collected from a wide variety of flowers, a resource widely available in the flower rich

quarry. Despite this being the only county record to date, further searching in the surrounding quarries and those around Oswestry may show it to be more widespread. It is associated with grassland and open woodland on calcareous soils where there is an abundance of empty snail shells.

Nomada guttulata

A very rare bee, until recently known from only a handful of sites in the south of England. This *Nomada* is a cleptoparasite of *Andrena labiata*. The cuckoo lays its egg in one or more of the cells within the *Andrena* nest and upon hatching the larva feeds on the stored provisions after having destroyed the host egg or young larvae. I first recorded the bee flying around the nests of *Andrena labiata* at Brokenstones in 2004. This record is 100 miles north of any known populations.

It would have been easy to overlook, as it is very similar to a common species of *Nomada* found throughout the county. It was only because I had read about the association between *A.labiata* and *N. guttulata* that I paid more attention to this particular bee. Never take anything for granted! Despite time looking and the presence of several nesting *A. labiata*, no sightings of the *Nomada* have been made at Brokenstones since 2005.



Andrena labiata (John Vallender)

The great news is that I recorded a female this year at Lyth Hill, a second site and presumably breeding.

References:

BWARS Newsletter Autumn 2007 David W. Baldock. Bees of Surrey 2008, Surrey Wildlife Atlas Project

Ian Cheeseborough

'Firsts' for Shropshire - Microlepidoptera

As a macro-moth recorder, in the past I (like many others I know!) have thrown the micro's over my shoulder discounting them completely. Not necessarily because I found them uninteresting but due to a tiny excursion into them a couple of years ago that opened up a vast minefield for me. If the truth be known I found this particular section of Lepidoptera bewildering to say the least - with something like 1500 UK species and very little reference work readily available.

However, this year has been one of microenlightenment for me. I started by looking at one or two species that often arrived in the moth traps in the garden and found them not too difficult to ID. A Christmas present of Chris Manley's British Moths & Butterflies has helped tremendously and is still a great starting point for me. I supplement this with the excellent UKmoths.org.uk website along with Goater's book of British Pyralids. When I then get stuck with a particular species I email Godfrey Blunt (for those who don't know Godfrey is the microlepidoptera county recorder with a wealth of knowledge on the subject). I try to do as much as I can to 'nail' it leaving Godfrey to help only when I can't get any further, mainly because it would be all so easy to email a pic of every micro I came across to Godfrey and let him do the work for me which would do nothing at all to further my ID skills of these somewhat tiny creatures, but I am also mindful of course that one individual has only so much time available.

Dave Grundy has also been of enormous help to me both out in the field, at indoor meetings, through email pics and accessing datasets. Not forgetting, of course, the superb UKmicromoths forum which works in much the same way as the Garden Moth Scheme forum where micro-moth discussions and pics are daily events. Everyone there is there to help.

All of this is immensely helpful but the real turning point for me was attending Godfrey's training day at The Stiperstones in June (funded by The Biodiversity Training Project: Ed). This really opened up my eyes to the true beauty of this often overlooked branch of lepidoptera. Indeed it was only a few days later I had confirmed my very first 'First for Shropshire' with Galleria mellonella, the Wax Moth which had arrived in my 15w Actinic Skinner Trap on 04/06/2010 and due to it's quite large size (for a micro) of 20mm forewing length and no doubt my naivety I assumed it to be a Noctuidae (macro) and spent some time poring through Waring & Townsend to no avail. I took a couple of photos and promptly popped it in the fridge for later analysis. It was a couple of days later that I uploaded a pic to the Garden Moth Scheme forum and Angus Tyner immediately ID'd it. Godfrey then confirmed my first 'Shropshire first' and I was hooked!

Since then I look much closer and now no longer discard them quite so readily. In fact I try very hard to ID every micro that comes my way – I don't always succeed and a few still 'go over my shoulder' but I certainly spend more time on them. And when you get up close and personal - and just an ordinary field-glass is all that's needed - you really do see the true beauty and splendour of this much under-recorded group. In fact, it is, of course, the reason why it's

relatively easy to get a first in Shropshire because there are very few of us recording them!

In recent weeks I have had another 'first' confirmed with a visit to Telford Town Park on one of the Wrekin Forest Volunteers monthly moth-trap nights that I organise where I found a singleton of *Roeslerstammia erxlebella* - a gorgeous looking bronze-winged moth with yellow crown and white antennae tips. It's easy to overlook them when they have a forewing length of 5mm and I had no idea of the significance of my find until I posted a pic on the UKmicromoths forum where the highly knowledgeable John Langmaid ID'd it for me and again Godfrey confirmed my second 'Shropshire first'.

A third 'near-first' for this year came with *Pammene fasciana* – sometimes known as the Chestnut Leaf-roller, again in the garden, this time with the 125w MV Skinner. I refer to it as a 'near-first' as after checking various datasets, Godfrey found that the previous Shropshire record was in 1930 at Llynclys and recorded by Riley.



Pammene fasciana (Paul Watts)

There is distribution-confusion on this species though as Manley has it as National Scarce B and UK Moths has it as 'widely distributed through Britain'. Dave Grundy has many Wyre Forest records and on further delving I find that, although the NBN Gateway has no Shropshire records, it would appear to be not a particularly uncommon species and here lies the problem: it's certainly been recorded in the bordering counties of Staffs and Worcs highlighting once

more the fact that Shropshire just doesn't have the micro-moth recorders it truly deserves. So my message would be if you trap them, or net them or pot them out in the field please have a closer look - and like me, I'm sure you'll be amazed at the huge and largely undiscovered (for Shrops) world of micro-lepidoptera and you would be going a long way to help increase our knowledge and local distribution of this fascinating group. Between us let's get a few more Shropshire Firsts!

Paul Watts

Note from the Editor: Paul mentions in his article that the Shropshire micro data is not yet on the NBN – this is currently being addressed as part of work that Godfrey Blunt and I are doing through the SEDN and should hopefully be addressed over the winter. Watch this space.

Putting 'docks' on the map

Some people get a bit sniffy and doubt the relevance of recording common stuff. That's fine and I suppose it has little conservation impact compared to BAP species or axiozoans, but there is a case to be made for recording and mapping common species. Just ask the British Trust for Ornithology whether those records of House Sparrow or Lapwing in the 1970's were important since the widespread decline of both of those species! Personally I like to see common species fairly represented with lots of records as it balances maps of uncommon species in the database. Also there is nothing more frustrating than looking at distribution maps and the only pattern emerging from them being where a particular recorder visited. After all why should the botanists and the birders have all the good maps!!!

To this end I have been encouraging people this year to record some of the common insects found on docks. Docks generally have a terrible press amongst conservationists and others. There is a shocking assumption that they must be "eradicated" whereas nettles of course are the patron saint of good wildlife plants and venerated beyond all others! This was particularly brutally illustrated in a recent episode of Countryfile where volunteers were managing a churchyard site and could be seen happily dismissing the value of docks whilst praising the bloody nettles!!!

(To paraphrase Harry Hill – "I like docks – but I also like nettles – which is best? There's only one way to find out! FIGHTTTT!!!!")

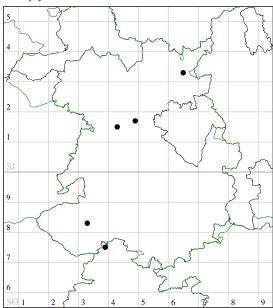
There is an evident and to my mind interesting invertebrate fauna surrounding docks, most obvious amongst them being the green dock beetle *Gastrophysa viridula* (DeGeer, 1775).



Gastrophysa viridula (Pete Boardman)

This very noticeable leaf beetle is often seen in cop whilst their orange eggs and black larvae (and associated leaf damage) are familiar to many entomologists. During 2010 a small but active network of Biodiversity Training Project volunteers, me, and other people have been out recording these beetles in their locale and passing me the records. Prior to this the SEDN database showed only a handful of records of this species of Chrysomelid.

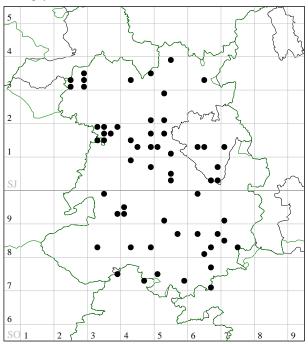
Gastrophysa viridula



Gastrophysa viridula records before 2010.

Following the recording of actual beetles, eggs, larvae and beetle feeding signs the map above shows a distribution map that reflects a far truer picture – but there are still plenty of blanks and more records are welcomed.

Gastrophysa viridula



Gastrophysa viridula with most 2010 records added

The striking dock seed weevil *Apion* frumentarium Linneaus, 1758 is another insect

that has been recorded more during 2010, though not to the same extent as with the green dock beetle. The weevil is often found on the underside of dock leaves but can readily be found if searched for.



Apion frumentarium on a dock leaf (Pete Boardman)

Whilst searching for dock insects Nigel Cane-Honeysett came across a strange honeycombed structure that turned out to be larval cocoon of the weevil *Hypera rumicis* (Linnaeus, 1758). The larvae can be seen inside.



Hypera rumicis larval cocoon (Nigel Cane-Honeysett)

Surprisingly the Dock Bug *Coreus marginatus* (Linneaus, 1758), a large and fairly obvious squash bug (closely related to the shield bugs), was hardly encountered by recorders during the

year (though as this goes to press Ian Cheeseborough and I are still finding them).



Dock Bug (Pete Boardman)

Perhaps this was down to the time of year when recorders looked as "new" adults emerge during August and most records of *Gastrophysa* were submitted during May and June. Further south the dock bug is said to be ubiquitous and was found in more or less every tetrad in Surrey (Hawkins 2003). It remains to be seen exactly how common the bug is in Shropshire.

The Naturalists' Handbook – No.26 – Insects on dock plants by David T. Salt and John B. Whittaker (Richmond Publishing) offers a good start for anyone wanting to study the invertebrate fauna of docks. I recently bought a hardback copy of it for £8 off Amazon.co.uk

I would particularly like to thank Jay Mitchell, Keith Fowler, Nigel Cane-Honeysett and Pete Lambert for their help in fieldwork and for submitting data during 2010.

Pete Boardman

The 2nd Shropshire Entomology Day -21st February 2011 At Preston Montford Field Centre

Following the success of our maiden Shropshire Entomology Day at Preston Montford in February 2010 we are delighted to announce the date for a second event on Saturday 21st February 2011. We would hope to have an interesting range of speakers present plus offer the opportunity for entomologists to chat and display relevant specimens / photos.

The programme hasn't been put together yet but we would look to offer a range of talks representing all aspects of Shropshire entomology.

As in 2010 the cost of the event (including free buffet lunch) is being met by the Biodiversity Training Project – probably the last activity of the project.

It is also quite likely that this event may act as the launch of the FSC's new lottery-funded project 'Invertebrate Challenge' – as mentioned under the Stop Press banner on the front page of this newsletter. The project is set to run for 3 years and so it may not be unreasonable to suggest therefore that the Shropshire Entomology day event may become a regular annual event with support from Invertebrate Challenge.

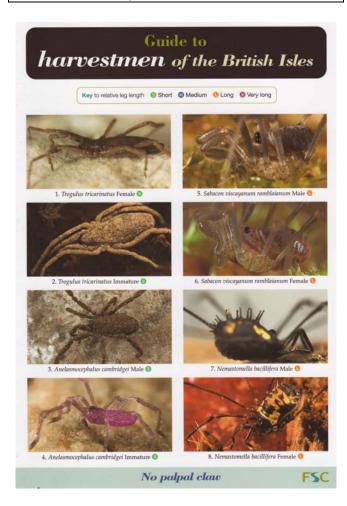
More details will be circulated in the New Year but in the meantime if you would like to reserve your place please contact me at;

pete@field-studies-council.org

Pete Boardman



New Publication – Fold-out chart Harvestmen of the British Isles



Last week this publication landed on my desk – a guide to the Harvestmen of the British Isles published by FSC publications and written by Paul Richards, Senior Curator of Natural History for Museums Sheffield. The guide, typical of the **FSC** style, is fold-out charts photographically one side, separating species by their palpal claw arrangements, then in a table on the back of the chart by distinguishing factors, size and activity of the invertebrates around the yearly calendar. Perhaps one of the more interesting facts about harvestman is the order name 'Opiliones' derives from the Latin word for 'shepherd'. In some countries shepherds used stilts to view their flocks from above, reminiscent of some of the larger harvestmen suspended on their long legs!!

The chart is available from usual outlets (including the FSC website – www.field-studies-council.org/publications priced £3.50.

Pete Boardman

The Guelder-Rose Leaf Beetle Pyrrhalta viburni (Paykull, 1799) in Shropshire

Whilst searching for shieldbugs recently at Alveley Country Park near Bridgnorth, with the long suffering Mrs Boardman, my attention was drawn to a small Guelder Rose bush *Viburnum opulus* that was clearly suffering a major attack of the insect variety. Most of the leaves were denuded considerably and upon closer examination at least ten pairs of beetles were in cop on the leaves across the plant.



Guelder-Rose Leaf Beetle (Pete Boardman)

Having photographed the offenders (above) I sent off the photo to Don Stenhouse – who has been supporting our fledging county beetle group – and he identified it as the Guelder-Rose Leaf Beetle (unsurprinsingly!!!!). He commented that it was mostly a southern species which thins out considerably as one heads north. The SEDN database shows two previous records for the beetle (unless you know differently?) – both

recorded at Wenlock Edge by Keith Alexander in 1985, and Will Prestwood in 1993. Guelder-rose is presumably a very common native shrub which is also planted on road verges and in hedgerows and so presumably the beetle too must be much more widespread than the SEDN database suggests? If you have any records of the beetle please let me know.

Pete Boardman

The County Recorder Network

This information is accurate at the time of press. All these people carry out their roles as volunteers and we are indebted to their hard work.

Spiders – The Shropshire Spider Recording Group –

Email: john.partridge@blueyonder.co.uk

Mayflies (Ephemeroptera) - Ian Thompson - Email: salopladybirds@f2s.com

Dragonflies and damselflies (Odonata) Ian Cheeseborough –

Email: ian.cheeseborough@yahoo.co.uk

Terrestrial and Aquatic Bugs (Hemiptera) – Pete Boardman –

Email: pete@field-studies-council.org

Beetles (Coleoptera);

Longhorn beetles – Nigel Jones Email: nigelj@insectpix.net

Ladybirds – Ian Thompson – Email: salopladybirds@f2s.com

Other beetle groups – Pete Boardman Email: pete@field-studies-council.org

True Flies (Diptera);

Hoverflies - Nigel Jones -

Email: nigelj@insectpix.net

Larger Brachycera (robber flies, horse flies, soldier flies etc), tachinid flies, conopid flies and picture-winged flies – Nigel Jones

Email: nigelj@insectpix.net

Craneflies - Pete Boardman -

Email: pete@field-studies-council.org

Other fly groups – Pete Boardman – Email: pete@field-studies-council.org

Butterflies and moths (Lepidoptera);

Butterflies – download a standard recording from the West Midlands Butterfly Conservation site and send records to Jenny Joy at joy.croft@btconnect.com

Macro-moths – Tony Jacques

Email: b-mcvc40@talktalk.net

Micro-moths – Godfrey Blunt

Email: A.G.Blunt@wlv.ac.uk

Hymenoptera,

Aculeates (bees, wasps and ants) and sawflies – Ian Cheeseborough –

Email: ian.cheeseborough@yahoo.co.uk

Others

Plant Galls (of whichever taxonomic order) – Godfrey Blunt

Email: A.G.Blunt@wlv.ac.uk

Orders not mentioned above: Pete Boardman –

Email: pete@field-studies-council.org

Dates for your diary

Here is a selection of entomological goings on in Shropshire and elsewhere that I am aware of.

10/10/10 Shropshire Invertebrates Group meeting at Severn Valley Country Park, Alveley

A patchwork of woodland, grassland and freshwater habitats on reclaimed colliery spoil. Galls, mines and fungi should abound! Meet at car park by visitors' centre, SO755838, at 11:00.

17/10/10 **Fritillary Action Day 1**, Wyre Forest Meet 10.00 am at entrance to Hawkbatch car park on B4194 Bewdley-Kinlet road GR. SO761776. Task: Clearing brash from a new coppice coupe at Cooper's Mill for the benefit of Pearl-bordered Fritillary. Please arrive promptly as we will be driving to the work site. This will be a joint event with Natural England. Contact: Mike Williams 01299 824860.

16/11/10 **Grizzled Skipper Action Day** Meet 10 am at Earnwood Copse car park on B4194 Bewdley-Kinlet road GR. SO744784. Task: Cutting back trees from edge of pipeline to encourage spread of wild strawberry. Please arrive promptly as we will be driving to work site. This will be a joint event with the Forestry Commission. Contact: Mike Williams 01299 824860.



21/11/10 Biodiversity Training Project CELEBRATION

Come and help celebrate the end of the Biodiversity Training Project with us at Preston Montford for the day. All invited – free buffet lunch and training sessions. 10.30am – 3.30pm

16/01/11 **Fight for your Whites Day** Meet 10 am at Bury Ditches car park on minor road just north of Clunton GR. SO334839. Task: Ride clearance to benefit the Wood White at one of its Shropshire strongholds. Refreshments provided. This is a South Shropshire Woods Project event. Contact: Mike Williams 01299 824860.

30/01/11 **Fritillary Action Day 2**, Wyre Forest Meet 10 am at back of Wyre Forest Discovery Centre 2 in Callow Hill GR. SO748739. Task: Clearing brash from Fritillary site. Lunchtime barbecue and cake! Please arrive promptly as we will be driving to work site. Joint event with the Forestry Commission

19/02/11 2nd **Shropshire Entomology Day** at Preston Montford Field Centre – see page 16 for details

20/02/11 **Fritillary Action Day 3**, Wyre Forest Meet 10 am at Lodge Hill Farm along old railway track from Dry Mill Lane, Bewdley GR. SO759767. Task: Clearing scrub from railway embankment to provide habitat for Pearlbordered Fritillary. Contact: Mike Williams 01299 824860.

Notes about Table 1.

- Species hatched through in **red** are considered to be erroneously recorded in Shropshire.
- Species hatched through in **lilac** have been recorded in Shropshire.
- Species hatched through in **yellow** were considered to have an uncertain Shropshire presence by Riley (1991) but I believe may be correct. They need confirming in the county and are worth looking out for around their food plant.
- Species hatched through in **blue** are found just over the county border in Worcestershire and should therefore be found in Shropshire.

BF No.	Species	Flight period	Foodplant	Notes
1487	Agdistis meridionalis	7-10	Limonium	sea cliffs
1488	A. bennetii	7-8	Limonium	salt marshes, local
1488a	A. tamaricis	?	Tamarix	Jersey
1489	Oxyptilus pilosellae	5-8	Pilosella officinarum	scarce
1490	O. parvidactyla	5-7	Pilosella officinarum	widespread but scarce
1491	O. distans	5-8	Crepis, Hieracium, Sonchus	dry soils in south-east, scarce
1492	O. laetus	5-10	Hieracium	hot, dry grass-lands. Suspected immigrant
1493	Buckleria paludum	5-6, 8	Drosera	scarce
1494	Capperia britanniodactyla	6-7	Teucrium scorodonia	widespread, local
1495	Marasmarcha lunaedactyla	6-8	Ononis	southern & south-east counties
1496	Cnaemidophorus rhododactyla	6-8	Rosa	south-east coastal areas, scarce
1497	Amblyptilia acanthodactyla	6-8, 9-5	polyphagous on herbaceous plants	widespread, frequent
1498	A. punctidactyla	6-7, 9-4	ditto	widespread
1499	Platyptilia tesserodactyla	6-7	Helichrysum, Antennaria	mountains, rare
1500	P. calodactyla	6-8	Solidago virgaurea	mountains
1501	P. gonodactyla	5-6, 8-10	Tussilago	fairly common
1502	P. isodactylus	6-9	Senecio aquaticus	marshes, swamps
1503	P. ochrodactyla (= tetradactyla)	6-8	Tanacetum	roadsides, woods, widespread
1504	P. pallidactyla	6-7	Achillea, ?Tanacetum	dry soils, local
1505	Stenoptilia	6-9	Gentiana	RDB – extinct?

	pneumonanthes		pneumonanthes	
1506	S. millieridactyla	6-7,	Saxifraga granulata,	Derbyshire northwards
		8-9	hypnoides	
1507	S. zophodactylus	7-9	Centaurium,	sparsely vegetated habitats,
			Gentianella	southern
1508	S. bipunctidactyla	4-10	Knautia, Scabiosa,	common and widespread
			Linaria, Succisa,	
			Misopates	
1508a	S. islandicus	6-7	Saxifraga	rare
1508b	S. aridus	4-10	Succisa, Linaria,	taxonomic status uncertain
			Misopates	
1508c	S. annadactyla	6-9	Scabiosa columbaria	Found in 2005. Rare
1509	S. pterodactyla	6-8	Veronica chamaedrys	widespread
1510	Merrifieldia leucodactyla	6-8	Thymus, Origanum	widespread
1511	M. tridactyla	4-9	Thymus, Mentha	W. Ireland, Lizard
1512	M. baliodactylus	6-8	Origanum	mainly calcareous soils,
				southern
1513	Pterophorus pentadactyla	5-7,	Convolvulus,	large, white, common
		9	Calystegia	
1514	P.galactodactyla	6-8	Arctium	south-east, local
1515	P. spilodactylus	7-9	Marrubium, Ballota	very local, mainly coastal
1516	Pselnophorus	6-7	Mycelis muralis,	Suffolk, Gloucs, Cumbria,
	heterodactyla		Crepis paludosa	Scotland
1517	Adaina microdactyla	4-6,	Eupatorium (galls	Smallest British plume
		8-9	stems)	
1518	Ovendenia lienigianus	6-8	Artemisia,	south-eastern
			Leucanthemum	
1519	Euleioptilus	5-6,	Inula, Carlina	southern counties, very
	carphodactyla	8-9		local
1520	Hellinsia osteodactylus	5-9	Solidago, Senecio	widespread, local
1521	H. chrysocomae	8	Solidago virgaurea	Kent, rare
1522	Euleioptilus	6-7	Solidago, Bellis	widespread, local
	tephrodactyla			
1523	Oedaematophorus	7-8	Inula, Pulicaria	common in south, scarcer in
	lithodactyla		dysenterica	north
1524	Emmelina monodactyla	1-12	Convolvulus,	common
			Calystegia	

Table 1 – British plume moths with information relating to flight period and plant habitat associations

Notes about Table 1.

• Species hatched through in **red** are considered to be erroneously recorded in Shropshire.

- Species hatched through in **lilac** have been recorded in Shropshire.
- Species hatched through in **yellow** were considered to have an uncertain Shropshire presence by Riley (1991) but I believe may be correct. They need confirming in the county and are worth looking out for around their food plant.
- Species hatched through in **blue** are found just over the county border in Worcestershire and should therefore be found in Shropshire.

WORCESTERSHIRE ENTOMOLOGY DAY

Date and time: Saturday 6th November 2010, 9.30 am – 4.30 pm. Venue: Community Discovery Centre, Callow Hill SO750740

Secretary for the day: Mike Bloxham

Chair: Brett Westwood

Brett Westwood is a keen amateur naturalist active in Worcestershire and is a member of the Worcestershire Biological Records Committee and the Wyre Forest Study Group. With Harry Green he helped to write the Nature of Worcestershire. In his working life he is a radio producer and presenter with the BBC Natural History Unit and he also writes the monthly Highlights section for BBC Wildlife magazine.

PROGRAMME

Title:	ENTOMOLOGY - A	WIDER	PERSPECTIVE
TIUC.			

09.30 - 10.00	Arrive, registration, refreshments
10.00	Welcome – Brett Westwood
10.05 – 11.05	Jon Sadler Entomology – a Wider Perspective
11.10 – 12.10	Andy Jukes Chalcosurphus eunotus - its ecology and conservation
12.15 – 13.15	LUNCH

13.15 – 14.00	Susan Limbrey Honeybees: do they belong here and can they survive?
14.05 – 14.50	John Bingham Photographing and Recording Longhorn Beetles in the Wyre Forest.
14.50 – 15.00	Short break
15.00 – 15.45	Pete Boardman The Shropshire Environmental Data Network (SEDN) and Invertebrate Recording in Shropshire
15.45 – 16.00	Questions and conclusion – Brett Westwood

SPEAKERS

Dr Jon Sadler

Jon is Reader in Biogeography in the School of Geography, Earth and Environmental Sciences at Birmingham University. He is well known as a great advocate for invertebrate studies and plays a leading role in finding ways to facilitate ecological work in Birmingham and the Black Country. His reputation as an inspiring teacher has ensured that young and talented ecologists remain in good supply to join in the battle to conserve our wildlife.

Andy Jukes

Andy is a freelance invertebrate ecologist from Staffordshire. His main interests are in bees, wasps and various fly groups although he has more than a passing interest in all things creepy and crawly. He is the chair of the Staffordshire Invertebrate Group and a volunteer species-co-ordinator for BWARS.

Professor Susan Limbrey

Susan is a soil scientist. She taught environmental archaeology at Birmingham University for nearly 30 years, and has kept bees for 36 years. Curiosity about the status of honeybees in our fauna and their role in human history links these interests.

John Bingham

John has a long association with the Wyre Forest both professionally and as a keen amateur naturalist. He specialises in botany particularly in recording the vascular flora and mycology. His interest in photography has extended into many other areas of natural history. Coleoptera has been of special interest within the invertebrates, especially Cerambycidae that provide attractive subjects for photography and have fascinating life histories.

Pete Boardman

Pete is Training Project Officer at the Field Studies Council in Shrewsbury until March 2011. He is also the 'Invertebrate Tsar' for the Shropshire Environmental Data Network (SEDN) and as such has compiled invertebrate records for Shropshire's virtual records centre during 2009 and 2010. He wrote 'The Craneflies of Shropshire' in 2007 and currently edits the Shropshire Entomology Newsletter.

The programme will also include time for looking at exhibits and displays and specimens that people may bring. **N.B. For health and safety reasons and to assist domestic arrangements pre-booking is essential.**

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Name:
Address
Telephone:
e-mail
The fee for the day is £8 which includes tea and coffee but not lunch.
I would like to bring an exhibit or display and would like book:
Table space of approximately

Please return the booking form with your cheque, payable to Wyre Forest Study Group to:

Mick Blythe, 33 Kings Arms Lane, Stourport on Severn, Worcs., DY13 0NS. 01299 871233 email: mickblythe@uwclub.net