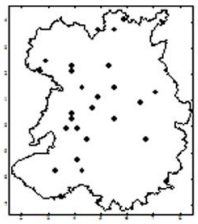

A bi-annual newsletter focussing upon the study of insects and other invertebrates in the county of Shropshire (V.C. 40)

April 2010 (Vol. 1)
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~ Welcome ~

I think these are indeed exciting times to be involved in entomology in Shropshire! We are building an impetus on the back of the first annual Shropshire Entomology Day held in February at Preston Montford Field Centre (a review of which will be published in the Shropshire Invertebrates Group (SIG) end of year review), and with the establishment of the Shropshire Environmental Data Network (SEDN) invertebrate database enabling an assessment of many species distributions for the first time in the county. On the back of these developments a number of people felt it might be a good idea to offer the opportunity to entomologists and naturalists to come together and detail notes and articles of interest relating to entomology in Shropshire.

We are aiming to produce two newsletters circulated electronically through our local and regional networks each year in April and then in October. We hope that the style is informative and relaxed but accurate and enlightening. If you would like to continue to receive *Shropshire Entomology* or would like to contribute to future newsletters please contact me at the above email address. The deadline for submission for the second newsletter is Friday September 10th 2010 with a publication target of the beginning of October. 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.

~ Contents ~

The Shropshire Environmental Data Network (SEDN) – progress so far

The Shropshire Environmental Data Network (SEDN) is a recorder led virtual local record centre for Shropshire that to date is being funding by Natural England, Shropshire Council and the Shropshire Wildlife Trust (via the Clive Tate fund). A system of "tsars" examining certain groups, or orders of taxon, has been employed to put together the database with a database manager in overall charge of collating the output of the individual tsars. Ultimately the database will be used by planners, biological recorders and other interested parties whilst data will also be submitted to the National Biodiversity Network (NBN) as it is compiled.

In terms of entomology, data has been assembled from county recorders, professional ecologists, recording organisations / societies and individuals to a central database which is currently held by me, subject to submitting to the record centre manager, Alex Lockton – who then passes it on to the end users.

We've been pretty scrupulous with trying to ensure the quality of records submitted so that a high quality dataset is put together with records properly validated and verified wherever possible. This is where the "recorder led" aspect of the project strengthens the process and a flow of data between county recorders and the SEDN has been encouraged in both directions.

As we see it data will come into the system in two ways – either directly to the SEDN "tsar" from a recorder – in which case it will go to the relevant county recorder for checking – or already verified data from the county recorder, or in some cases, national or regional recording schemes.

The SEDN system is being run using Mapmate ™ software, which is easily available and works well on most PC systems. It also allows the easy exchange or 'syncing' of data between recorders – and then ultimately between the SEDN and the NBN.

'Axiozoan' Chimney Sweeper moth at Pennerley Meadows in 2008 (Pete Boardman)

As we stand at the time of publication a total of 256,592 records of invertebrates are held in the database comprising of 4,933 species. These are made up of 1351 butterfly and moth species, 1349 fly species, 1061 species of beetles, 340 bees, wasps, ants, sawflies and parasitic wasps, 284 bugs and 548 taxa made up of other orders including spiders, dragonflies, woodlice, fleas, mayflies etc. Around 200,000 records of this total are butterfly and moths sourced from the Butterfly Conservation database with key contributions from local recorders making up the remainder of non-lepidoptera records.

Help from some of the national schemes should also be acknowledged with datasets of the most conservation relevant species being received from the Terrestrial and Aquatic Hemiptera Recording Schemes, The National Caddisfly Recording Scheme and the British Arachnological Society.

One requirement of the entomology tsar's contract was to list Shropshire's "important" invertebrates under the term of 'axiozoans'. These are made up of what would formally be called Red Data Book species, those listed as Nationally Scarce, UK BAP or LBAP species as well as indicator species of priority habitats, plus

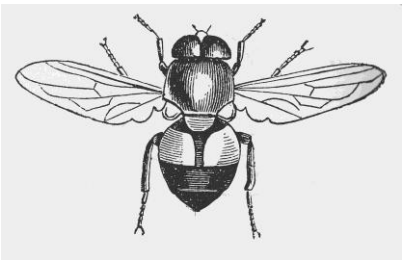
those known to be uncommon in Shropshire that might otherwise be listed as locally common elsewhere. An example of which is the Chimney Sweeper moth *Odezia atrata* (Linnaeus, 1758) (pictured) found in a few good quality meadows in the south of Shropshire.

Currently the axiozoan list stands at around 700 taxa but this doesn't yet include micro-lepidoptera of which there are known to be a good number of representatives to add to the list. Hopefully, distribution maps of our important species can be used alongside those of our important plant indicator species (axiophytes) to better target important areas of habitat with the county and increase the number of wildlife sites.

There are a number of potential databases we can still call on to add to the SEDN database total, and indeed this will carry on during 2010, however most importantly now we want to get entomologists into the habit of submitting new data to us, ideally through the county recorder network. Further into this newsletter there is a list and contact details of Shropshire county recorders that should be a first point of contact for records. Where no recorder is listed for a taxon please send your records to me at the email address listed. I can then pass on records to a variety of national recording schemes where we know their details.

Pete Boardman

SHROPSHIRE HOVERFLY RECORDING GROUP



Contact:
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email: nigelj@insectpix.net

Launch of the Hoverfly Recording Group

At the first Shropshire Entomological Day in February 2010 the launch of the Shropshire Hoverfly Recording Group was announced. The group aims to increase the recording effort for this important family of attractive flies, to run occasional field trips and to help develop member's skills for identifying and studying hoverflies.

Hoverflies are an abundant family of flies. On warm days there are almost always plenty around to record, including in gardens. With some 280 or so UK species there is plenty of scope to find a great variety of hoverflies in Shropshire. Hoverflies come in many, sizes, forms and colours. They include the classic yellow and black wasp mimics, honey bee and bumblebee mimics. Their lifestyles are many and varied. The larval stages can be found devouring aphids (above and below ground), in rot holes in trees, in many kinds of decaying organic matter, in organic sludge, in plant stems, tubers and bulbs; mining leaves and in ant, bee and wasp nests. We currently have records for about 200 species in Shropshire, which is very respectable. However a number of scarce species have not been recorded for many years. The good news is that in most years "lost" species are re-discovered and completely new species for the county emerge, so there is always a degree of excitement to be had! Best of all, some species are large and really very attractive.

We already know that the county's woodlands are particularly important, many harbouring good populations of hoverflies associated with ancient woodlands. On the other hand, Shropshire's renowned Meres and Mosses are relatively little explored, and surely will host some interesting hoverfly communities. A visit to Clarepool Moss last year turned up the bog specialists *Sericomyia lappona* (Linnaeus, 1758) (a real beauty) and *Chrysogaster virescens* Loew, 1854, indicating that there is much waiting to be discovered in Shropshire's wetlands.

For anyone contemplating taking an interest in hoverflies, there are a number of species that can be easily recognised in the field and there is a first-class book describing and illustrating all UK species, with a new "beginners" book planned. Do get in touch if you'd like to take up hoverfly recording. If there is demand we will run some outings and can always provide help in identifying species.

As an incentive to start recording hoverflies, Shropshire is home to strong populations of two very scarce British hoverflies. We'd like to build a fuller understanding of the county populations of these two hoverflies and following are some notes to encourage you to seek new sites for these rarities.

Chalcosyrphus eunotus – can you help us to find more sites for the "Denizen of the Marches"?

On the publication of British Hoverflies (Stubbs & Falk, 1983), *Chalcosyrphus eunotus* Loew, 1874 was considered to be one of Britain's rarest hoverflies. This enigmatic woodland fly had only ever been recorded on three occasions in Great Britain, including two records from Herefordshire in 1899 and the Dowles Brook, Wyre Forest in 1977. At that time, on the slenderest of evidence, it was correctly guessed that *C. eunotus* was associated with semi-submerged wood in streams in woodland.

Chalcosyrphus eunotus (Bob Kemp)

The records from Herefordshire and Wyre Forest indicated that the Welsh Marches area might be a stronghold for the species, and indeed, with increased recording of hoverflies since 1983, local discoveries began to be made, firstly in Worcestershire and later in Shropshire. The importance of Shropshire as a stronghold for this hoverfly first became apparent in 2000, when Andy Godfrey, who was surveying for rare craneflies, came across *C. eunotus* in five county woodlands. Since then Pete Boardman, Nigel Jones, Bob Kemp and the Shropshire Invertebrates Group have made more discoveries of sites in Shropshire, so that we now know of eleven county woodlands harbouring this rare fly. In tandem with these discoveries *C. eunotus* has been found in several other areas in western England, but Shropshire has a particular concentration of records with twelve known sites in and around Cound, Highley, Kinlet, Coalbrookdale, Attingham Park, Habberley Valley, Betton, Tugford, Wyre Forest and another just over the border in Mortimer Forest Herefordshire. *C. eunotus* is a rarity throughout its European range, adding to the significance of the Shropshire - Worcestershire population.

C. eunotus is doubtless present in more Shropshire woodlands and it would be very useful to increase our knowledge of its distribution in the county. Finding *C. eunotus* is an exacting task. Firstly, it is seldom encountered outside May. Secondly, it is restricted to a very specialised habitat of submerged deadwood in water courses, in woodland, in semi-shade. Finding this hoverfly is made more difficult by its rather cryptic appearance. It is a fly that does not stand out against whatever background it rests on, but once spotted it is an unmistakeable fly, being rather hairy and having dark markings on its wings. However, armed with this knowledge of where and when to find *C. eunotus* it can be discovered through diligent fieldwork. In my experience it is never found away from the close vicinity of woodland water courses. On sunny days in May, one needs to search

alongside streams and flowing ditches that contain submerged and semi submerged deadwood. Here one needs to look on timber in watercourses, trunks close to water courses and overhanging streamside vegetation.

With a little experience one soon learns to recognise likely locations for this denizen of the Marches woodlands and there is one characteristic of its behaviour that is a tremendous help for finding this hoverfly - if you catch a tantalising glimpse of a likely suspect flying off as you approach, hold still for a few minutes, then more often than not, it will return to what will be one of its favoured perches. So if you fancy a challenge, with the prospect of discovering one of Europe's most enigmatic hoverflies, then do have a go this May and search any likely looking woodlands you can find. For your first record it is helpful to take a specimen (or if you can manage it a photo) for validation. So long as you take just a single fly you should do no harm to local populations. Good luck!

Finding *Cheilosia semifasciata* – the Wall Pennywort miner

Cheilosia semifasciata male (Nigel Jones)

The second of Shropshire's speciality hoverflies, *Cheilosia semifasciata* Becker, 1894 is one of a genus whose members are predominantly black flies, mostly with few distinguishing features, meaning that they usually need to be collected for microscopic examination.

Although *C. semifasciata* is one of these "small black jobs" it helpfully gives its identity away through its strong association with Wall Pennywort *Umbilicus rupestris*. During April, when in the vicinity of Wall Pennywort under the dappled shade of trees it is well worth checking for this rare species. The female oviposits into Wall Pennywort and the larvae mine the leaves.

Cheilosia semifasciata (female) (Nigel Jones)

Cheilosia semifasciata larva (Nigel Jones)

Remarkably, when an individual larva has mined out the leaf it is in, it exits the leaf, climbs down the stem, then up another stem and eats a hole in the stem and enters a new leaf. They

sometimes do this before a leaf has been exhausted, leaving a characteristic hole in the underside of the leaf. Beneath Haughmond Hill there is a substantial population of *C. semifasciata*, so much so that leaves of Wall Pennywort are often completely decimated by mid May, as the busy larvae munch their way through the ample stocks of fleshy leaves.

How to find *Cheilosia semifasciata*:

Finding the adults is reasonably easy. You will need to be on the lookout on sunny days during April, I have never seen the adult fly after April, but have seen it as early as late March. The males hover at about one to three metres height, in the vicinity of Navelwort, often coming down to Navelwort leaves to rest. They are a narrow, shiny black fly – quite delicate looking. If you see a female, also a small, black fly, ovipositing into leaves or stems of Navelwort then there is every chance that you have found *C. semifasciata*. By far the easiest way to confirm a breeding colony of *C. semifasciata* is to find stands of Wall Pennywort under shade, look for signs of mining, or even numbers of wilted looking (eaten out) leaves. Then inspect more closely for partly mined leaves and prise such leaves apart, often you will find a typical fly larva inside. The photographs accompanying this item should help you identify this hoverfly.

In the UK the species has a very restricted distribution. There are a handful of records from southern England – most are old records, and more numerous and recent ones from north Wales and Shropshire. We know of nine sites in Shropshire, many strongly associated with the sandstone hills in the northern parts of the county at Haughmond Hill, Grinshill Hill, The Cliffe, Lee Brockhurst and a probable site at Weston. There are other sites around Earl's Hill, Snailbeach, and Bridgnorth. Interestingly, I have searched a large and very suitable looking extent of Wall Pennywort on the Malvern Hills in Worcestershire, during May. The plants were all pristine with absolutely no sign of mining by *Cheilosia*. So, we may well harbour in Shropshire, a genuinely restricted population of this rare UK species.

Searching for larvae in Wall Pennywort has been applied successfully by Alex Lockton and Dan Wrench of the Shropshire Botanical Society, who between them have found several of the county sites for the species. Do let me know if you think you have found *C. semifasciata* – I will always try to travel out to inspect suspect sites.

Nigel Jones

Reference:

Stubbs, A.E. & Falk, S.J. (1983) – British Hoverflies: An Illustrated Identification Guide. British Entomological and Natural History Society

Visit to Ludlow Museum

On Saturday 13th February, 2010 SIG members Godfrey Blunt, Nigel Jones and myself visited Ludlow Museum to view the invertebrate collections held there. Our hosts were Daniel Lockett, the Curator of Natural Sciences and Jackie Tweddle, Project Collections Officer.

We were taken to one of the store rooms where we were able to look at the various specimens. These cover several orders and groups with lepidoptera in the majority. In the time available we did not attempt any kind of inventory. Most specimens appear to be in the boxes or cases in which they were acquired. Some of these are classic wooden multi-drawered display cases, many are simple boxes.

The condition of the specimens is very variable. Some are beautifully mounted and presented and could be displayed as they are. Quite a few are not well mounted. There are some in such an advanced state of disintegration as to be worthless (thankfully not many are like this).

Some are not well labelled, the majority could be described as adequate. We were surprised and pleased at the number of specimens in the collections, greater than we imagined there would be.

The original reason for our visit arose from the desire, both of the Museum and entomologists in the county, to see these collections available for viewing by the public and SIG had requested an opportunity to assess what was currently held. The Museum has the ambition to hold more Shropshire invertebrate specimens to act as reference collections for local workers to study, a facility which at the present time we lack in the county.

It is generally felt that the new facilities planned within the conversion of the Music Hall in Shrewsbury is unlikely to be able to provide sufficient or suitable accommodation and that the Ludlow Resource Centre would prove to be the most suitable, if not the only, available alternative site. For this plan to become a reality the need for some appropriate display units is paramount and in these times of financial stringency purchasing of cabinets will be difficult unless funding can be found outside of Council sources. There would be a lot of work to do to satisfactorily prepare much of the collection for display, but we are all hopeful that a start can be made in the not too distant future.

Ian Thompson

The Shropshire Beetle Recording Group

I think it is fair to say that beetle recording in Shropshire has for some time been an activity carried out mostly by visiting entomologists contracted to carry out entomological surveys on some of our better sites. Alongside this Ian Thompson has been acting as a focus for ladybird recording and Nigel Jones has been collection long-horned beetles records, but few other groups have been recorded. We therefore know little about the vast majority of species occurring in Shropshire in terms of their status and distribution. The SEDN database shows us that actually a reasonable fauna exists with over a thousand species recorded, but many of these records come from our "best" sites, those nature reserves where expert coleopterist's have been brought in to compile species lists – such as Fenn's, Whixall & Bettisfield Mosses NNR, Wem Moss NNR and The Stiperstones NNR etc, or those sites that are used regularly by tutors in beetle identification courses such as Preston Montford Field Centre near Shrewsbury. Also based at Preston Montford is the Biodiversity Training Project – a five year project funded by the Heritage Lottery Fund and the Field Studies Council – which has supported beetle identification training for local volunteers over the last few years, with help from Don Stenhouse, the county recorder from neighbouring Cheshire. From this training a need has been identified for more regular mentoring and support in beetle identification for beginners and so the BTP has stepped in to support this and the formation of a beetle recording group during 2010.

The beetle group was launched at the inaugural Shropshire Entomology Day in February alongside the Hoverfly recording group and both have similar aims – to encourage more recording of species in Shropshire. The BTP has arranged three training days with Don Stenhouse during the spring and early summer of 2010, including a trip to Liverpool Museum to examine the beetle collections there. Following that and two field-based events it is hoped that a small group of keen group members might start to collect and record beetles around the county. Obviously it may take some time to get to this position but I feel it is worth a go – especially whilst we can count on the support of the BTP,

including the supply of resources such as identification keys.
One exciting development shortly to be launched is a CD-ROM put together by Richard Wright from Warwickshire. Richard already puts together a regular newsletter called 'Beetle News' downloadable here (http://www.amentsoc.org/publications/beetle-news/). The CD-ROM will have images of most commonly encountered beetle species in the UK (and many not) further more helping with identification of what are a daunting group of species. It is hoped that once the CD is released the BTP will be able to purchase a number of copies and supply them to members of the beetle recording group. It is also hoped that Richard will be attending a couple of our events in 2010 to help us get started.

If you would like further information of the group or be kept up to date with group activities and training events please contact me.

Pete Boardman

Bees, wasps and ants of Shropshire

Now is the time!
Spring is the time when recording starts for this order of insects. Warm, sunny days bring the first queen bumblebees out from their winter hibernation to begin the long process of rearing their new brood.

Solitary mining bees that have spent the autumn and winter in their pupal cases dig their way up through the soil to start their new lives.
You may be surprised to learn that Shropshire has some 276 species of these fascinating and beautiful insects.

Bees	139 species
Wasps	120 species
Ants	17 species

Where ever you are in the county you will not be far from them. In your garden or in the wider countryside, as long as there are flowers to feed from or places to hunt and suitable nesting sites then you will have the chance to see some of these insects.

Andrena cineraria (Pete Boardman)

Different species visit different flowers and chose to nest in different situations. Bees are usually associated with flowers from which they collect nectar and pollen. Wasps do take nectar while visiting flowers but are usually found around these plants as well as bushes and trees while hunting for prey on which their larvae are reared.
For solitary bees and wasps, nesting sites are very varied and include bare or sparsely vegetated ground usually with a southerly aspect, dead wood in old trees or posts and the stems of plants such as bramble and elder. Bumblebees will use old mouse and vole holes in

banks and rough grassland, in compost heaps and under sheds and paving slabs where cavities exist as well as numerous other sites. Ants utilise a similar variety of situations as well as in the case of the wood ant species mound nests made up of collected fragments of vegetation.

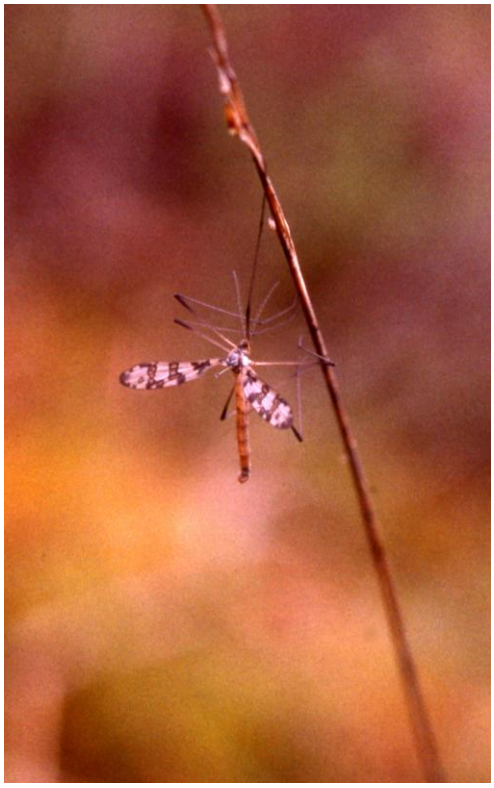
The study of bees, wasps and ants opens up a fascinating world of different lifestyles. Some are social others solitary, some spend time collecting food for their own young others act as cuckoos. As larvae, you may feed on a mix of pollen and nectar or tuck into some paralysed insect prey. You may only eat spiders or maybe flies, or if you are lucky, a range of invertebrates. It doesn't get much better than this. Slave making ants, others that set up home in the middle of wood ant nests, wasps that hunt spiders as large as or larger than themselves.... Shropshire offers this and much, much more. Get in touch if you'd like to learn more and get involved!

Ian Cheeseborough

The cranefly assemblage of Fenn's, Whixall & Bettisfield Mosses NNR

Fenn's, Whixall & Bettisfield Mosses NNR has long been recognised as one of the foremost sites for invertebrates not only in Shropshire but in wider English and indeed Welsh context. The site has been managed by Natural England (NE) and the Countryside Council for Wales (CCW) since it was purchased in 1990 following a campaign by regional and national conservation organisations. Since then habitat restoration work has continued a pace to turn the bog back to growing raised mire. Even before 1990 the site had long been known for its cranefly fauna having been visited by eminent dipterists past including Cyril Pugh, Harry Britten and Cedric Colyer amongst others. Pugh (from Oswestry) can reasonably be called 'the father of Shropshire dipterology', and discovered *Phylidorea heterogyna* (Bergroth, 1913) here in 1936 at its first UK site. It has subsequently only been found on 4 other sites (Boardman 2005a). It has not been recorded since on the Mosses but could still survive on the site as it is a very small and easily overlooked species and has a quite a late and short flight period. It has subsequently turned up on bogs as far away as the Flow Country and Cumbria suggesting it is under recorded but possibly requires good quality bog habitat.

Harry Britten was the first to record the beautiful (as craneflies go) *Idioptera linnei* Oosterbrook, 1992 in 1938. It was then recorded intermittently over the next several decades but not at all during the worst of the drainage and peat extraction era until John Kramer of the Cranefly Recording Scheme discovered an individual in 2000.



Idioptera linnei at Fenn's, Whixall & Bettisfield Mosses NNR (Pete Boardman)

Following this the author discovered the species to be increasingly widespread as the site "wetted up" in response to active management and later

carried out a study of the autecology of the species as part of an MSc dissertation at the University of Birmingham (Boardman 2005b). As part of the research into this species larvae were discovered and were reared for the first time. The presence of sphagnum moss was identified as a vital component for larvae which were sieved from sphagnum tussocks (Boardman 2004).

Another species found commonly on the mosses in sphagnum tussocks is *Phalacrocera replicata* (Linnaeus, 1758) the larvae of which resemble a piece of sphagnum stem with leaves.

All three species of British *Prionocera* have been recorded in recent years. *P turcica* (Fabricius, 1787) is by far the most commonly encountered and dominates the spring cranefly fauna, appearing in late summer too. The author and John Kramer discovered the very similar *P. pubescens* Loew, 1844 flying alongside *turcica* and it appears that this slightly smaller species takes to the wing and peaks in numbers earlier in the year before the peak *turcica* emergence. As far as we are aware it has no second brood like *P. turcica. P subserricornis* (Zetterstedt, 1851) was recorded by the author from a ditch on the boundary of the site subject to the influence of natural "iron" springs in 2006. The habitat of this species is described as 'shady fen ditch below alder trees where rotting leaf litter provided a substrate for larvae' (Stubbs *in prep.*) but the ditch where the fly was found on Whixall Moss was much more open and not shaded at all.

Cyril Pugh discovered a number of uncommon craneflies from the site as well as *Phylidorea heterogyna*, and several of these remain unrecorded since. *Nephrotoma crocata* is a very smart cranefly – one of the so called 'tiger craneflies' for their yellow and black markings. Records are often said to come from damp substrates on heathland, often near pines. The original specimen resides in the Manchester Museum collection, along with most of Pugh's other collected material and his diaries / sketch and field note books. Another species not recorded since Pugh's visited is *Metalimnobia bifasciata* (Shrank, 1781). This species has broad, marked wings and is said to fly over bracken in late summer. In 2006 the rediscovery of *Tricyphona schummeli* Edwards, 1921 was particularly welcome as it turned up on Bettisfield Moss following an extensive campaign to remove pine forest that had virtually smothered the bog surface. Previously it had been recorded by Pugh in 1925.

Not all scrub though is deleterious to the bog and a dead wood species of cranefly is common on the Mosses wherever rotting birch trees are found. *Tanyptera atrata* (Linnaeus, 1758) is a large species resembling a parasitic wasp that is one of the more spectacular species found anywhere in the county.

Tanyptera atrata in the Liverpool Museum collection (Pete Boardman)

In total 91 species of cranefly, fold-winged cranefly and winter gnat have been recorded on the peat bog complex which as such qualifies it as the "best" county site. This represents around 39% of the known county taxa. Of the 91 species 13 are listed as Shropshire axiozoans.

Pete Boardman

References;

Boardman, P.J. (2004) – Notes on the Autecology of the cranefly *Idioptera linnei* Oosterbroek, 1992. Dipterists Digest Vol. 11 No.2 –p167-170

Boardman, P.J. (2005a) – A review of the known records of *Phylidorea heterogyna* (Bergroth, 1913) from Great Britain. Dipterists Digest Vol 12 No.1 – p83-86

Boardman, P.J. (2005b) – The Autecology and Distribution of the craneflies *Idioptera linnei* Oosterbroek, 1992 and *Idioptera pulchella* (Meigen, 1830) (Diptera: Limoniidae) in Britain. MSc dissertation submitted to the University of Birmingham.

Rosemary Beetle in Shropshire

There seems no end of non-native species marching their way across the country these days. The most obvious of these in Shropshire is the Harlequin Ladybird *Harmonia axyridis* Pallas, 1773 which has been munching its way through native invertebrates (and soft fruit) since 2007. Another beetle recently introduced to Shropshire is the Rosemary Beetle *Chrysolina americana* (Linnaeus 1758).

Adult Rosemary Beetle on Lavender (Dan Wrench)

This native of southern Europe (not much of an 'Americana' after all!) first arrived in Britain in 1994 in a garden in Wisley, Surrey. That population didn't seem to last long but in the mean time other populations were becoming established in southern England with several known by 1998. By 2005 this beetle was in the top ten of pest species reported to the Royal Horticultural Society in London and surrounding areas (www.rhs.org.uk)

Rosemary Beetle larvae on Sage (Dan Wrench)

In Shropshire I first found this beetle in a garden in Coton Hill, Shrewsbury on the 17th June 2006. This garden had only been created in 2004 and presumably the beetle had been introduced with plants from a local nursery. It seemed pretty catholic in its taste here feeding on Rosemary, Lavender, French Lavender and Purple Sage. Several years on the population is still there with adults and larvae regularly seen. Following this sighting I recorded the beetle a few days later on the 25th June on Lavender at Netley Hall near Dorrington, south of Shrewsbury.

I have not heard of other sightings of this beetle and was wondering whether others in Shropshire had found it and whether the worries of it becoming a pest species were really warranted. At the garden in Coton Hill it only produced slight damage to plants but for the keen gardener this superficial damage might be more significant.

If anyone has seen this beetle please pass on the details to Pete Boardman, or use the recording form at http://bit.ly/Species_record.

Dan Wrench

Reference:

(http://www.rhs.org.uk/Science/Plant-pests/Rosemary-beetle)

The snow flea *Boreus hyemalis* (Linnaeus, 1767) in Shropshire

On a snowy day in January, we (Caroline Uff, Ian Cheeseborough & Caitlin Davies) went for a walk to an old hill fort called Burrow, near Craven Arms. We were doing a race down the embankments and I saw a 'bug' on the snow. It was hopping around. I had a close look at it and it looked like a mosquito with no wings. I called over Ian to have a look but he didn't know what it was. He thought it was unusual to see an insect out at that time of year. Luckily I had a new camera for Christmas so I took some photos of it. When we got home and looked at the photos we could see that instead of wings it had 2 spines. They looked a bit like hooks. A few days later Ian said that he thought it was a snow flea and we looked it up in the books. Mum looked to see if it had been recorded before around here (on the NBN gateway), but it hadn't – in fact there weren't many in England at all, so we sent our record in to the Natural Shropshire website.

Caitlin Davies (age 8)

Snow Flea (Caitlin Davies)

Snow Flea (Caroline Uff)

The snow flea (*Boreus hyemalis*) belongs to the order Mecoptera – Scorpion flies, considered to be the most ancient order of insects. (In America they often call springtails snow fleas - but these are different). The snow flea has a long, downward pointing face (like a beak) typical of other Scorpion flies. It is about 3mm long and dark glossy brown. It is flightless and can be seen throughout the winter – typically hopping over snow in colder parts of the country. The curved spines of the male are modified wings and are used during mating and the female can be easily distinguished by a conspicuous ovipositor. Both adults and larvae are predatory and lives amongst mosses - often associated with heathy areas and sandy soils.

Caroline Uff

Reference:

(http://www.buglife.org.uk/discoverbugs/bugofthemonth/snowflea.htm)

Bugs in Shropshire

The bugs Hemiptera are not the easiest group of British insects to tackle as a whole, but some recent developments have made identification and recording much easier for certain bug

families. If you haven't already discovered it, there is a British Bugs website www.britishbugs.org.uk with basic information on a good range of species plus photographs, some of them from Nigel Jones. Good recent publications include 'A Key to Families of British Bugs' (Insecta, Hemiptera) by Dennis Unwin (Field Studies Council AIDGAP Key, 2001), and 'A Photographic Guide to Shieldbugs and Squashbugs of the British Isles' by Martin Evans and Roger Edmonson (published in softback by WGUK, 2005). The latter has excellent photos and text for these distinctive and attractive bug families.

I have been keeping notes on shieldbugs in Shropshire for several years (though it's time I got these records onto the county database now!) One species of particular interest I have come across recently is *Neottiglossa pusilla* (Gmelin, 1789), which turned up on a SIG outing to Bury Ditches and subsequently on a brownfield site in Madeley. According to Evans and Edmonson and the British Bugs website this is a rather scarce species confined to southern counties of England, but a friend of mine has recently found it on a disused colliery spoil heap in South Yorkshire. Is this bug now expending its range and a Global Warming indicator?

If we wish to boost Hemiptera recording in Shropshire, Shieldbugs and Squashbugs are quite the best group of families to start with. But there are a couple of other real oddities I suggest we target also. The family Membracidae contains some of the strangest bugs worldwide, and there are two British representatives. I've found *Centrotus cornutus* (Linnaeus, 1758) in the Wyre Forest and at Ironbridge – its bizarrely elongated pronotum makes it easy to identify. The second species in the family – *Gargara genistae* (Fabricius, 1775) – is associated with Broom and is probably not in the county, though a recent record from Bristol suggests it is extending its range from the south-east and it may be one to watch out for here.

The third oddity turned up once in my moth trap in the Shropshire part of the Wyre a few years ago, when this locality was at the very northern edge of the species' British range. It is *Ledra aurita* (Linnaeus, 1758), the only European member of the subfamily Ledrinae (Cicadellidae). Elsewhere this subfamily is sometimes called Flat-headed Bugs, though if we need to invent an English name for *Ledra aurita* I think the 'Eary Weirdie' would do the trick! Though apparently not easy to track down, it would be worth looking for in old deciduous woodlands in the county.

The British Bugs website has images of these species at;
www.britishbugs.org.uk /systematic_auc.html

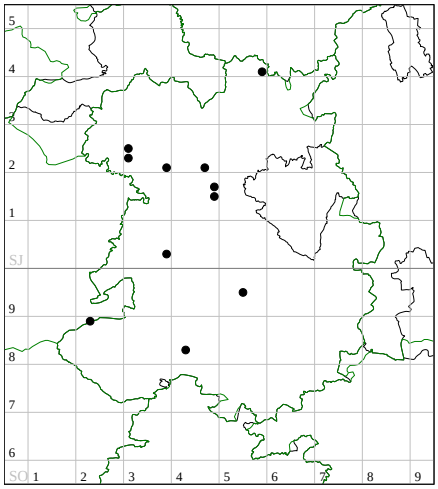
Godfrey Blunt

Shieldbugs in Shropshire

I don't think many entomologists in Shropshire (other than Godfrey) had given much thought to the distribution of shieldbugs in Shropshire until a number of us attended last years Worcestershire Entomology Day at Heightington. Gary Farmer gave an excellent illustrated talk looking at the identification and recorded distribution of the larger shieldbugs of Worcestershire. Following this a number of us were chatting in a corner of the hall at lunchtime following Gary's talk and the conclusion we came up with was that we hadn't a clue which species had been recorded in our county, or the distribution of those that had. Instantaneously we all pretty much came up with the idea that we should do something about this and appeal for wider help within the Shropshire entomological community to fill this gap. After all shield bugs are relatively frequently

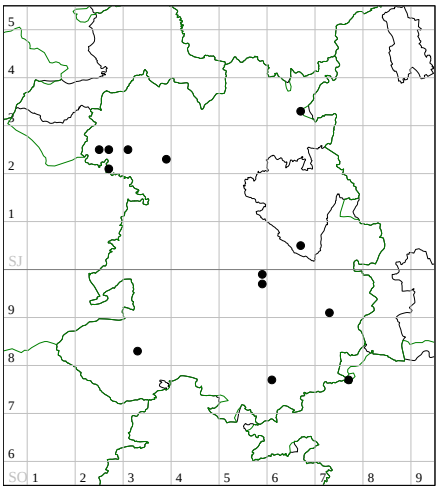
encountered animals of which there are a decent amount of identification resources available, as mentioned in Godfrey's article above.
Fortunately the growth of the SEDN invertebrate database has enabled us for the first time to look at the current situation and disseminate species maps.

Acanthosoma haemorrhoidale



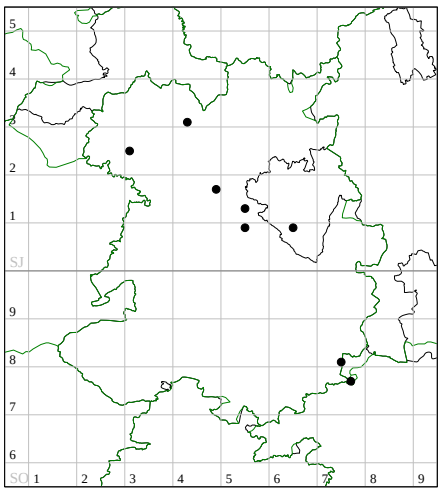
Hawthorn Shieldbug

Dolycoris baccarum



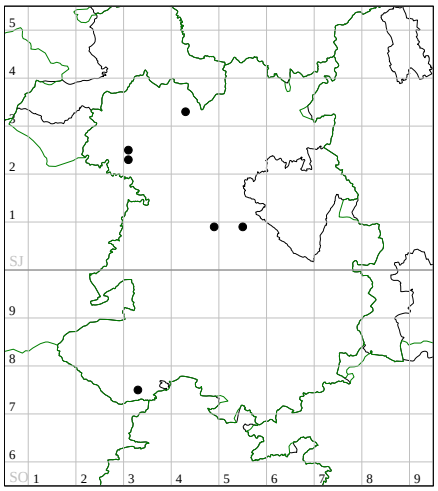
Sloe bug / Hairy Shieldbug

Elasmostethus interstinctus



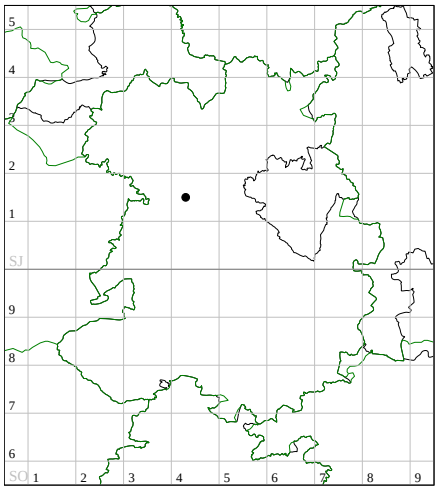
Birch Shieldbug

Elasmucha grisea



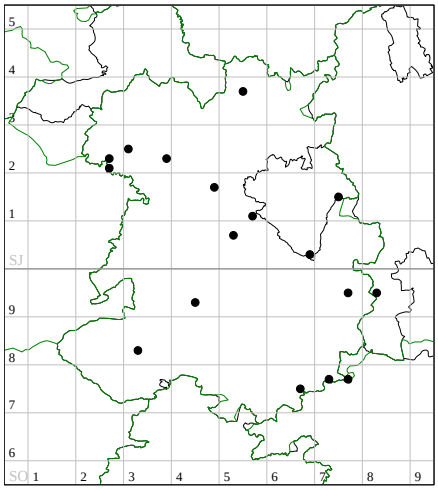
Parent Bug

Eysarcoris fabricii



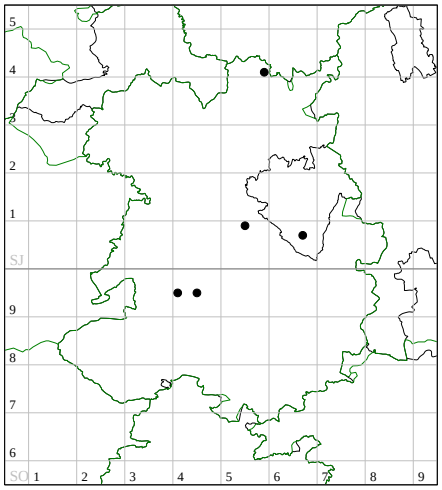
Woundwort Shieldbug

Palomena prasina



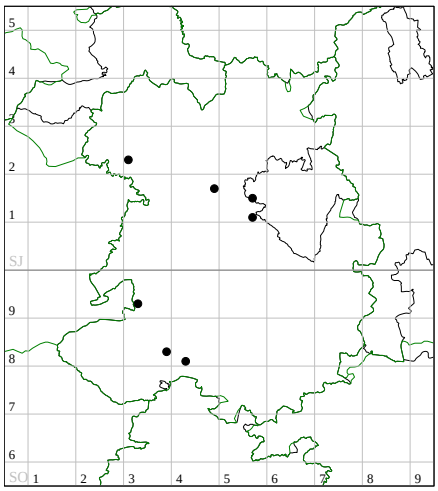
Green Shieldbug

Piezodorus lituratus



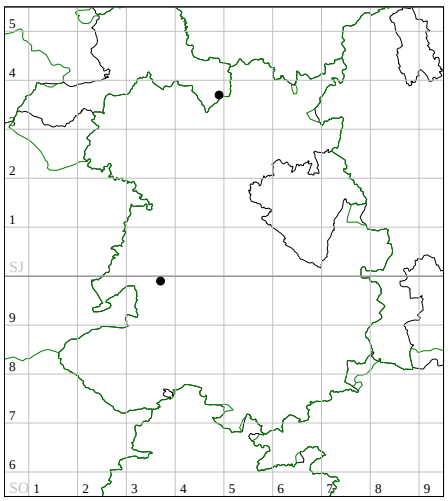
Gorse Shieldbug

Pentatoma rufipes



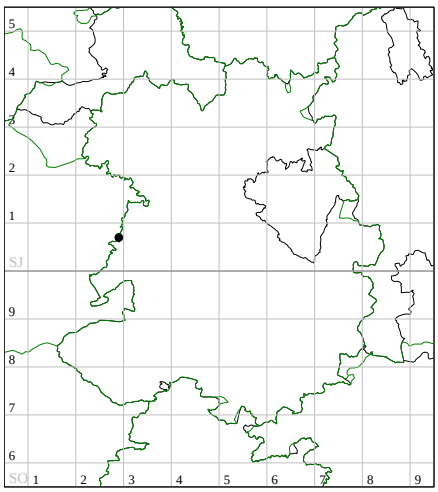
Forest Bug / Red-Legged Shieldbug

Rhacognathus punctatus



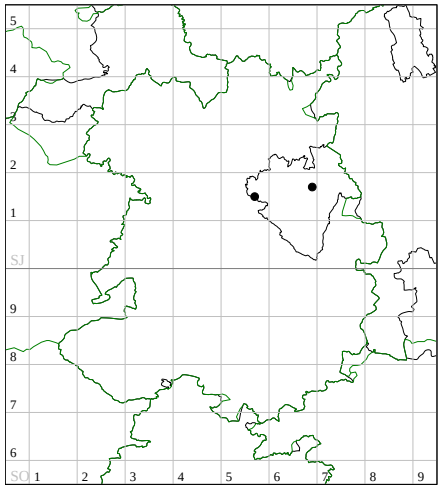
Heather Shieldbug

Picromerus bidens



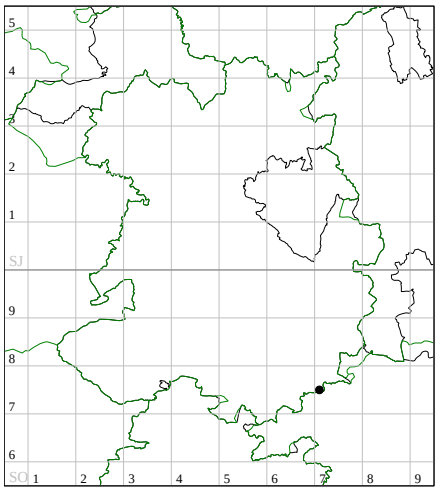
Spiked Shieldbug

Sehirus bicolor



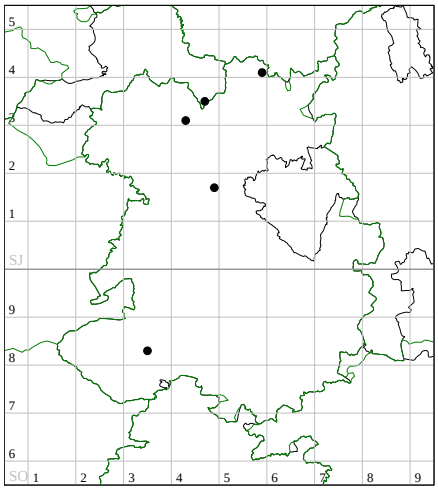
Pied Shieldbug

Sehirus biguttatus



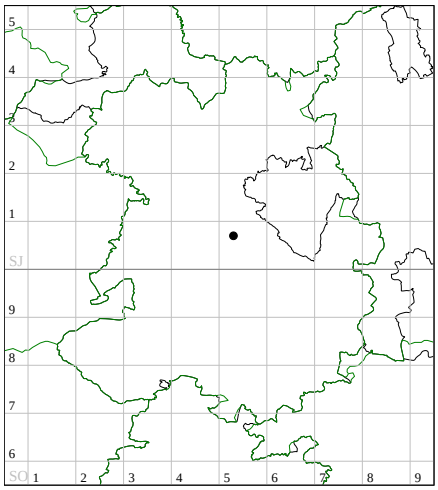
Cow-wheat Shieldbug

Troilus luridus



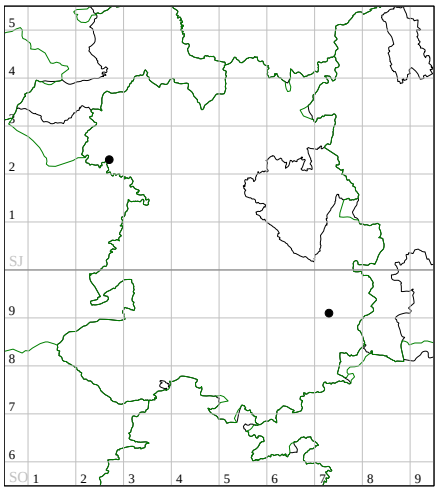
Bronze Shieldbug

Zicrona caerulea



Blue Shieldbug

Coreus marginatus



Dock Bug

[please note that this account does not include Godfrey's record of *Neottiglossa pusilla*]

Of the species found in Shropshire two species are of particular interest as axiozoans. The heather shieldbug *Rhacognathus punctatus* (Linnaeus, 1758) is associated with dry heath and in wet, boggy places where it hunts leaf beetles and their larvae. It is widespread in Britain but extremely local everywhere (Hawkins 2003). It has been found in two locations in Shropshire, Fenn's, Whixall & Bettisfield Mosses NNR where it was recorded six times between 1988 and 1992, and The Stiperstones NNR where it was recorded as part of the survey work carried out by the late Peter Skidmore. Skidmore noted in his accompanying notes that he considered it an unusual find in upland heath.

The second axiozoan is the Cow-wheat shieldbug *Sehirus biguttatus* (Linnaeus, 1758) which as the name suggests is associated with Common cow-wheat. Bernard Nau, the national terrestrial bug recorder discovered the bug in the Wyre Forest and suggested it might be a target for searches in 2010. The bug can be found in vegetation litter around the base of plants, or within a couple of metres of them. The

distribution of cow-wheat within Shropshire is relatively widespread, particularly within the south, and south-west of the county leading to more recording opportunities.

During 2010 the Biodiversity Training Project is running shieldbug identification and recording courses for volunteers in April and September to encourage more people to record these insects so that we might gain a better understanding of the distribution of our shieldbugs. If you have any records of shieldbugs please send them to me so I can add them to the database.

Pete Boardman

Micro-lepidoptera update

It's time to turn the gas up under micro-moth recording in Shropshire! An assessment of the present situation shows that we have around 4,000 records of micro-moths for the county, about half of which are in print in Adrian Riley's 'A Natural History of the Butterflies and Moths of Shropshire' (Airlife Publishing, 1991) plus the less accessible update, Riley, A. M. and Palmer, R. M. (1994) "Recent significant additions and corrigenda to the list of Lepidoptera recorded in Shropshire." Entomologist's Gazette 45, 167-182. The other half languish in a file on my bookshelves, with only a handful of them as yet on the county database. At a very rough estimate we have added 35 or so species to the county list since Riley's accounts.

My task for 2010 is therefore to make huge inroads into putting these records onto the database. There are also a few records of potentially new county species which need following up, plus work to be done in determining the "good" county species for Pete Boardman's inventory of Shropshire axiozoa.

Then there are some micro-moth conundrums to sort out. For example, how common or otherwise are the China-mark moths? Is the Nettle Tap's distribution and abundance related to altitude on our higher moorlands? In May I shall be looking for webs of the Hawthorn Ermine *Yponomeuta padella* (Linnaeus, 1758); these appear annually in very few places in the county, though theoretically it should be "common and widespread." There is no shortage of species which could yet be found in Shropshire, particularly native moths expanding their range through global warming and alien species spreading from accidental introductions. All these need looking out for.

Macro-moth enthusiasts can and do help by sending me records of the more easily identified micros caught in their moth traps; email these, please, ideally on an Excel spreadsheet with date and locality grid reference, to A.G.Blunt@wlv.ac.uk Good quality photos can also be sent as these can sometimes be identified down to species level. I am also happy to identify specimens, though just a few at a time, please – and only moths in excellent condition. I do get frustrated at receiving pots of dead micros which have knocked around against each other and lost any identification features they had. Nigel Jones passes them on to me individually in small acetate envelopes used by stamp collectors, and this is the best method I have so far come across for transporting these delicate and easily damaged insects.

So, 2010 the Year of the Micro? At least we can make a start.

[note from Editor – Godfrey is running a micro-moth identification event at The Stiperstones NNR for the Biodiversity Training Project on 5th June 2010 – see the 'dates for your diary' session for booking details]

Godfrey Blunt

The County Recorder Network

There is often some confusion as where to send records so I am attempting here to clarify the situation with a list of all active recorders and schemes in Shropshire. Some of this is cribbed from the Natural Shropshire website but it can be a little complicated to navigate through and there are omissions. 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.

25/04/10 Shropshire Invertebrates Group meeting at Wenlock Quarries

To investigate the variety of habitats of quarries which have recently passed out of production. Grid reference to be advised. Meet at 11:00.

23/05/10 Shropshire Invertebrates Group meeting at Kinver Edge (Staffordshire)

To explore the heathland, woodland and relict sand dunes for Hymenoptera, Brown Argus *Plebeius agestis* and unusual plants (*Corynephorus canescens*, *Hypochaeris glabra*). We will also try pheromone lures and run an overnight moth trap. Meet at Warden's Lodge near heathland entrance SO838828 at 09:00 to investigate moth trap catch, or 11:00 to explore the Edge. There is ample roadside parking nearby.

05/06/10 Biodiversity Training Project event at The Stiperstones NNR

Micro-lepidoptera at The Stiperstones NNR with Godfrey Blunt. To book contact Pete Boardman pete@field-studies-council.org

06/06/10 Shropshire Invertebrates Group meeting at Bucknell Wood

To search for the red longhorn *Pyrrhidium sanguineum* plus Scarce 7-spot Ladybird *Coccinella magnifica* and other wood ant inquilines. Park on open ground by garages between Bucknell and Ford, SO 358740, at 11:00.

23/06/10 Biodiversity Training Project event at Colemere (National Insect Week Event)

The diptera of wetlands with Nigel Jones. To book contact Pete Boardman pete@field-studies-council.org

04/07/10 or 11/07/10 Shropshire Invertebrates Group meeting at Nesscliffe Training Area
(date to be confirmed)

To explore a different area of this extensive site. Meet at 10.30 am at Walford College student car park south of Baschurch on the B5067 Shrewsbury to Baschurch road, at SJ 435205. We will take a mini-bus from there.

15/08/10 Shropshire Invertebrates Group meeting at Crosemere and Sweatmere

Grid reference to be advised. Meet at 11:00.

19/09/10 Shropshire Invertebrates Group meeting at Apley Castle

A complex of woodland, meadow and pools close to Telford's Princess Royal
Hospital. Meet at parking area grid ref.
SJ654 132 at 11:00.

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.