

NEWSLETTER 35

September 2006

Harlequin ladybirds getting close to Leicestershire

Britain has a new and unwelcome visitor - *Harmonia axyridis*, the harlequin, the most invasive ladybird species on earth! It originates from Asia, but has been introduced in several western European countries as a biocontrol agent on a range of crops. We believe the harlequin made its way from Europe across the English Channel, by means of flight and wind. Some harlequins are also known to have come into the country on produce.

This ladybird first arrived in Britain (in Essex) in 2004, and has been recorded across the south-east of England in 2005. It has also been spotted in places further west and north, and Derbyshire has thriving populations. At the time of writing there are no verified records from Leicestershire, but we expect them this year.

The threat to biodiversity is our main concern (our native ladybird species and some other insect groups may be threatened). Why?

- Because the harlequin is larger and more voracious than most native ladybirds, it out-competes them for aphids.
- It is polyphagous and if aphid supplies run low, it turns to other food sources - including the eggs and larvae of other ladybirds and butterflies.
- Populations can grow quickly because the harlequin's life

cycle is faster than that of other ladybirds, and more than one generation of new harlequins may hatch each year (our native species only hatch one generation per year).

How to recognise a harlequin

- It is big (for a ladybird!) - 6 to 8mm long, which is at least as big as a 7-spot ladybird.
- It may be orange, red or black.
- It may have lots of black spots (usually 15 to 20 but sometimes less) or 2 or 4 orange or red spots.
- It normally has brown legs (and always has brown tarsi).

Some of our other ladybirds look like the harlequin, but the harlequin is often bigger.

How you can help

By keeping an eye out for ladybirds (harlequins and native species) and recording your sightings, either via our websites or the address below. If you would like to do regular ladybird surveys (six to eight times a year) at a site of your choice then please contact us for further information.

Thanks for your help!

Peter Brown

www.harlequin-survey.org
www.ladybird-survey.org

UK Ladybird Survey, CEH Monks Wood,
Abbots Ripton, Cambs, PE28 2LS
Tel. 01487 772408

LEICESTERSHIRE

ENTOMOLOGICAL SOCIETY

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Next Copy Deadline:

5th January 2007

Since Peter Brown's talk the following has been recorded (F. Clark Ed.).

A JESTER AT LARGE -

In February I attended the Society's talk on Ladybirds given by Peter Brown from Monks Wood. It was very interesting and informative especially concerning the alien predatory species, the Harlequin Ladybird, which was first spotted in England in the south-east in 2004. At the time of the talk the closest to Leicestershire where the species had been recorded was Derbyshire, in Derby itself.

On the hot afternoon of Sunday 8th July, I went to Ketton for a walk around the Quarry reserve with members of the Wildlife Trust to look for butterflies and when I returned through the village, I decided to explore the churchyard.

Since childhood I've always found churchyards and anything clad in Ivy rewarding places for wildlife where I would make discoveries of different wild flowers and insects; so I decided to investigate various gravestones in Ketton.

I noticed different species of Ladybird that were familiar to me amongst the leaves - 2-spot, 14-spot, and Cream Spot. But then I spotted something new to me; a large black ladybird with 4 big red spots and a large white face which was as big or bigger than a 7-spot - I knew this was different. Was this a Harlequin - *Harmonia axyridis*? I neither had my camera nor any books with me. I was undecided about taking the specimen home so left it in situ. (I checked other headstones but this was the only one with a black ladybird on it.)

Back home I went straight to my computer and searched www.harlequin-survey.org. There I found that my discovery at Ketton matched the 'spectabilis' form of the Harlequin so I submitted an on-line record whilst on this site. (There is also another black form of the Harlequin, 'conspicua', which has two large red spots with a small black spot within them.) I

also emailed Peter Brown and pointed out that I had neither images nor specimen.

The very next day I returned to Ketton and to that particular gravestone armed with camera. Luckily, after only a short search, there was a large black ladybird with four red spots so I put my limited digital skills to use! I sent these images to Peter who verified my record as the first of its kind for Rutland. He also informed me that the first Harlequin for Lincolnshire had been discovered a couple of weeks earlier in Grantham.

I let local organisations know of my find including the Community Heritage Initiative who got in touch with the press. As a result a full-page article of the news appeared in 'The Leicester Mercury' on 18th July and details were broadcast on Rutland Radio a little later. After the media coverage Holly Hayes had calls of sightings - none of which have been verified. However, it seems that the majority of people who are making sightings locally are killing the insects with some abandon. Part of the content of the newspaper article and the broadcast was to try to encourage people to simply record their findings. More positively, however, a 'succinea' form of the Harlequin (red with black spots) was found in a moth trap in Charnwood recently, and lately Peter Brown has verified the first record from Nottinghamshire.

The Harlequin Ladybird is a predatory species so there's a fear that our native ones will be under threat. However, my visit to Ketton churchyard also produced a sweep-net full of Shieldbugs; amongst them was *Troilus luridus*, a predatory species. The 5th instar of this Shieldbug that I found was devouring an adult 2-spot Ladybird. Roger Hawkins in his book, 'Shieldbugs of Surrey', reports that this particular bug has been known to eat 7-spot Ladybirds. I'm not aware of either the public at large or gardeners in particular stamping on these Shieldbugs as in the case of the Harlequin Ladybird.

I didn't set out on my visit to Ketton to find anything in particular, but my chance stroll around the churchyard proved to be very fruitful for me. I think it's important just to go slowly, take time and notice things. Other insects I've found this year include -

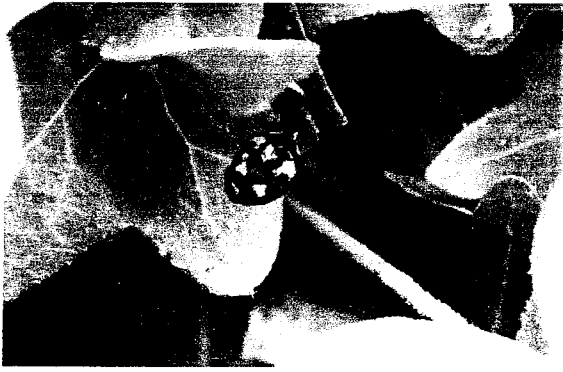
Hoverflies - *Volucella inanis* and *Volucella zonaria* (both nationally scarce) on Bramble - within 100 yards of my home in Birstall; Ladybirds - either an 11-spot or an Adonis in Birstall (I still need to do a positive id on this) - just across the road from my home in the churchyard; and a particular Ground Beetle and an unusual Tortoise Beetle in a Northamptonshire reserve - both firsts for the reserve.

I think my message is keep looking and recording.

Glenys Panter



Two forms of *Harmonia axyridis*



The Ketton Harlequin Ladybird

Countryside and Biodiversity Service

Oadby & Wigston Borough Council

Based in the Planning Department of the Borough Council, the role of the Countryside and Biodiversity Service is providing ecological advice to both the Forward Plans and Development Control team, co-ordinating the Volunteer Tree Warden Scheme and implementing all work associated with the District's Biodiversity Action Plan.

The all encompassing work ensures that nature conservation and indeed biodiversity are recognised as a tool in ensuring achievement of sustainable development. To this end a Phase 1 Habitat Survey and a Biodiversity Audit has recently been completed by consultants and is acting as baseline information to inform the emerging Local Development Framework process. Discussions are taking place with DEFRA and FWAG to integrate this work into meaningful data to use with local landowners and farmers with the new agri-environment schemes.

Sincs, (Site of Importance for Nature Conservation) although non-statutory designations, are never the less important in flagging up sites which contribute to conserving priority habitats and species through the landscape and need to be protected within the planning system.

One of the Sincs, an abandoned field adjacent to the Grand Union

Canal has been purchased by the Borough Council and is being managed as a hay meadow to increase its botanical interest. Great burnet is a feature of the site.

Wigston Triangle, another Sinc which is owned by Network Rail is slap bang in the middle of South Wigston, and is a combination of unimproved grassland with substantial ant hills, tall ruderals, bare ground, and scrub.



Ant hills on Wigston Triangle

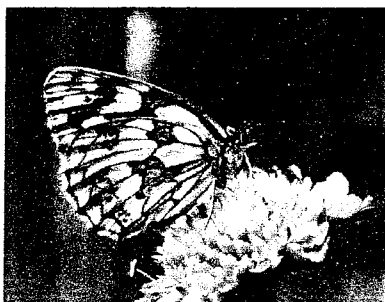


Unimproved grassland and hawthorne scrub on Wigston Triangle.



Common Toadflax on Wigston Triangle

It is proving to be an interesting site for scarce or nationally notable invertebrates: a ladybird, *Adonia variegata*, weevil, *Oxystoma credo*, and a hoverfly. In addition, there is a colony of Marbled White Butterfly on the site, which is the only known colony in Leicestershire, the other nearest location known to support Marbled White Butterfly being Ketton Quarry in Rutland. An action plan is being drawn up as an additional plan in the District's Biodiversity Action Plan to ensure that the Marbled White is conserved on the site and talks are ongoing with Network Rail to manage the site in accordance with this.



Marbled White (*Melanargia galathea*)

Butterfly Conservation are keen to help with monitoring of the Marbled White Butterfly and have visited the site in 2004 and 2005. Annual recording will build up a picture of the status of the butterfly of the site and be important information for the ongoing management of the site.

Work carried out for the Biodiversity Action Plan has included the construction of two otter holts within the borough along the River Sence. Field signs demonstrating the presence of otters are regularly seen and it is hoped that otters could be encouraged to breed by providing the holts. One of the holts has been constructed of timber from the pollarding of a nearby willow, thus alleviating the need to purchase timber or to pay for removal of timber off site. Projects like these are only possible through the ongoing support of the landowners concerned.



Otter holt.

Much of the work carried out would not be possible without volunteer help. In order to make the right management decisions it is important that data is recorded and collated. Volunteers regularly walk the canal and river recording field signs of otter, and bird species. This data is crucial for wider habitat and species management.

This year sees dragonfly recording taking place along the canal and it is hoped to undertake great crested newt surveys in some of the ponds identified within the Phase 1 Habitat Survey and Biodiversity Audit.

Helen Gregory

Oak Bush Crickets

On the 8th August 2006, I was cutting back some rampant elderberry encroaching on our drive, and adjacent to the Welford Road lime trees, when several pale green bush crickets popped out of the foliage. There were males and females present and I thought that they were Oak Bush Crickets (*Meconema thalassinum* (De Geer)), and I sent photos to Helen Ikin, who agreed with my identification.

Ref:
J.A. Marshall & E.C.M. Haes, 1990. *Grasshoppers & Allied Insects of Great Britain & Ireland*. Harley Books.

Maggie Frankum

Bombus hypnorum

Matt Smith [BWARS] has just reported that he's uncovered a hibernating *Bombus hypnorum* queen in a garden near Mapledurham [N. Reading, Berks] [SU6975], 27.01.2006. When he was trying to move a very wet, spongy, rotten *Leylandii* log, a large chunk broke off. The bumble queen was approx 10cm in from the end of the log and about 5cm below the surface. He says either she came from a local nest that was active in 2005 - or flew in from outside the district. Another 10k dot on the map and further evidence of the spread of this species. [this is in Neil territory, so I've primed him!!]. The bumble looks like a *Bombus pascuorum* - brown thorax, but with a black abdomen and white tail. I wonder if/how long it will take to reach VC55?

Maggie Frankum

Book Review

The Natural History of the Rose Bedeguar Gall and its insect community by Simon Randolf
British Plant Gall Society 2005
ISBN 0-9511582-2-8 £14.00 pbk
Includes postage; from Peter Shirley, 72 Dagger Lane, West Bromwich B71 4BS

Better known as the Robin's Pincushion this gall is a familiar site on both wild and cultivated roses. This book is a technical publication which summarises all that is known of the wasp's life cycle which causes the gall formation and the community of other organisms associated with it.

Frank Clark (Ed.)

Death of Galls

Back in May, a message came from Karsten Schonrogge [at CEH Winfrith, Dorset], who asked for anyone interested in plant galls to keep watch in their area for the spring generation of galls on the leaves and catkins of English Oak

[*Quercus robur*]. "A number of galls that we would normally expect to be abundant on English oak at this time of year, are virtually absent and it would be really interesting to know how geographically widespread this phenomena is". The galls included currant galls on leaves and catkins, caused by the sexual generation of the cynipid wasp *Neuroterus quercusbaccarum*; *N. albipes* [sexual] on leaves and catkins; and *Andricus curvator* [sexual], that distorts the leaves. Several people looked for them but without success, and I found just two currant galls on the catkins that fell off my neighbour's tree; and only one *A. curvator* specimen came from the Attenborough Arboretum in Knighton, Leicester.

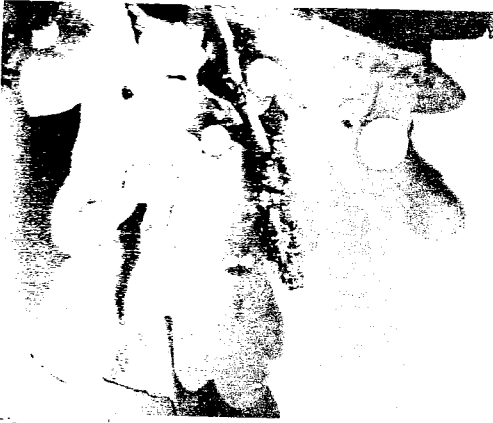


Cross-section of *A. curvator*, showing the inner gall and larva

The other twist to the story is that while a number of species have "disappeared", Oak Apples, caused by the sexual generation of the cynipid wasp, *Biorhiza pallida*, have had a really good year, there were trees loaded with them!



A. curvator galls distorting oak an oak leaf.

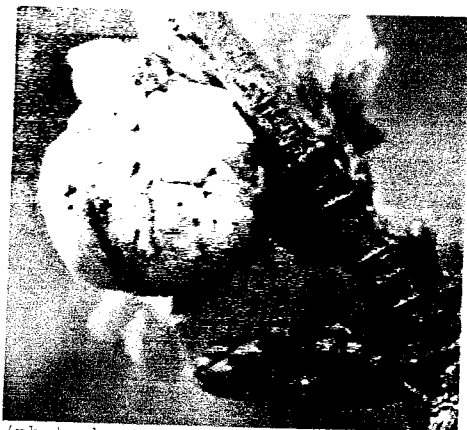


The spring sexual generation of *N. quercusbaccaram* galls on oak leaves and catkins in 2005 - missing in 2006.



Common Spangle Gall - the agamic generation of *N. quercusbaccaram* galls in 2005 - will they be missing too this autumn?

Karsten has since commented that from the messages he's received, it appears that the cynipid galls on oak leaves and catkins have been hit pretty hard throughout the UK, while *B. pallida* has a bumper year in many places. He has a group collecting galls on the continent [Hungary] and first messages



(photo by Stephen Woodward)
Oak apple - sexual generation of *B. pallida* on oak - abundant in 2006.

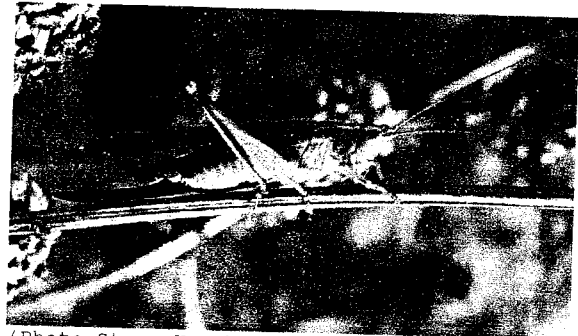
suggest that this is true for pretty much the whole of Europe. This suggests that the late spring might have caused a mis-match of tree - cynipid phenologies, but the reverse for *B. pallida*. It will be interesting to find out how the dramatic change in gall densities will affect other community members like parasitoids and gall predators. Look out for Common Spangle and Smooth Spangle galls this autumn. And look out for Knopper galls too.

Reference:

British Plant Galls, Redfern, Shirley & Bloxham, 2002, FSC AIDGAP

Maggie Frankum

THE CONEHEADS ARE COMING!
(See the January Newsletter).



(Photo Steve Houghton)

All indoor meetings are held at Holly Hayes, 216 Birstall Road, Birstall, meetings at 7.00pm for a 7.30 start. Exhibits are always welcomed and refreshments are included.

2006

Thursday 19th October Members Evening.

Thanks to Jan Dawson we have a joint meeting with the Lit & Phil on Wed November 8th 2006 at 7.30 in the Lord Mayor's Room in the New Walk Museum, when Dr Mike Archer will give a talk on ' MAKING SENSE OF SOLITARY BEE AND WASP ASSEMBLAGES '

Thursday 7th December AGM and Mince Pies.

2007

Thursday 18th January To be announced in the January Newsletter.

Thursday 15th February To be announced in the January Newsletter.

Thursday 15th March Dr Tony Cooke - Dung Beetles.

Thursday 12 April The Collection Resources Centre, Barrow on Soar. grid ref. SK593163.
Meet at 19.00h.

For sale

First 3 volumes of "The Moths and Butterflies of Great Britain and Ireland" Edited by J. Heath & A. Maitland Emmet. Immaculate condition - first two volumes with dust covers. Present value £60 each volume. Offers considered. Contact Jan Dawson, New Walk Museum. Tel. No. 0116 225 4905.

Looking for advice or information?	
The following are willing to act as an initial point of contact for providing advice and information to members. As you will see, this list is far from complete - If you think you can help, please let us know.	
Coleoptera	Derek Lott, 5 Welland Rd, Barrow upon Soar, Loughborough, Leics LE12 8NA Telephone: 01509 412876 Email: derek@lott.fsnet.co.uk
Diptera	John Kramer, 31 Ash Tree Road, Oadby, Leicester LE2 5TE Telephone: 0116 271 6499 Email: johnkramer@tiscali.co.uk
Hymenoptera (Bees)	Maggie Frankum, 3 Chapel Lane, Knighton, Leicester LE2 3WF Telephone: 0116 270 5833 Email: royfrankum@tiscali.co.uk
Lepidoptera	Adrian Russell, 15 St. Swithin's Road, Leicester LE5 2GE Telephone: 0116 241 5101 Email: adrian@wainscot.demon.co.uk
Biological Recording (and other orders)	Darwyn Sumner, Holly Hayes, 216 Birstall Road, Birstall, Leicester LE4 4DG Telephone: 0116 267 1950 Email: dsumner@leics.gov.uk