

Butterfly Conservation

Saving butterflies, moths and our environment



HERTFORDSHIRE AND MIDDLESEX BRANCH

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Autumn 2016

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Chair's Report, by Malcolm Hull

Welcome to the latest Herts. & Middx. Butterfly Conservation newsletter. It's been a busy season, with several hundreds of people attending our butterfly walks and moth trapping events. Reports are now usually to be found on the sightings page of the Branch website, with a few highlights in the newsletter. Our New Members Day in July was also well attended and this year held at Notcutts Garden Centre, St Albans followed by a butterfly identification training session at Ellenbrook Fields. If you've recently joined, keep an eye out for next year's event.

A New Butterfly Atlas for Herts & Middx

I'm delighted to say that a comprehensive record of all butterflies in our Branch area is due for publication this Autumn. The book is based on records submitted by all our members and supporters and builds on the successful Branch annual reports. The author, Andrew Wood, has analysed much historic information as well as recent trends to produce a fascinating book. A leaflet explaining how to take advantage of the special pre-publication offer is enclosed with this newsletter and on the book can be ordered from the Herts Natural History Society website. You can read more about this on [page 19](#).

Small Blue Project

The Branch has established a project to assist the Small Blue, a rare species which is attempting to re-establish itself in Herts. This is the smallest UK butterfly and one of the most delightful to watch. I was amazed to see over 200 one morning near St Albans in June as they were waking up from their overnight roost in the long grass. Totally dependent on Kidney Vetch, the fortunes of the butterfly will quickly crash if populations of this plant are lost. And this can happen easily. Last year there were three fields at Heartwood Forest dominated by Kidney Vetch – this year they are dominated by coarse grass with only a handful of Kidney Vetch plants surviving. Our Small Blue Project Group are working to introduce more Kidney Vetch to suitable locations where it can sustain long term. Once we have secured landowners' permission we will be organising new plantings next Spring. More details will be posted on the Branch website, but do let me know if you'd like to be kept informed of events, or progress with the project.

Our Butterfly Reserve

In July I joined a well attended butterfly walk at Millhoppers Pasture near Tring, BC's only reserve within our Branch area. Despite the overcast weather, our leader, Reserve Warden Jez Perkins helped us find a good range of grassland butterfly species including all three local varieties of skippers. Jez explained about the plans to reintroduce conservation grazing to the site and the benefits this will have for butterflies. More information on future activities and the new support group are on [page 5](#).

Rare Long-tailed Blue sighting

I was thrilled to read about a sighting of this species in London and even more so when I saw it myself the next day. This is our only example of a butterfly where sightings in our Branch area are confined to inner London! Read more about it on [page 14](#).

A new transect

Regular transect walks are a vital part of our butterfly recording effort. Over the years I have been involved with several and just completed 20 years of walks at Bricket Wood Common, with the help of Colin Everett and Chris Newman. My latest transect is somewhat unusual as it involves no walking and takes place inside my garden shed, which is dark and measures 4ft by 7ft. Not a very promising location you might think, but at present it is home to 30 hibernating butterflies, 1 Peacock and the rest Small Tortoiseshells. I've recorded the butterflies there on an ad hoc basis over the years. The butterflies always hibernate in the darkest corners and this year is one of the best in terms of total numbers. But what I really want to keep track of is when the butterflies start and finish their winter rest. In the last few years, most of the Small Tortoiseshells start hibernating in mid July, with a second wave a month later. But as I write in mid September the numbers are still going up. So some are hibernating two months earlier than others and I suspect there will be a similar difference in their date of emergence in the Spring. More of this when I have a full year of results.

Thanks

Alex Radley joined the Branch committee five years ago and took on the roles of Publicity and also Sales Co-ordinator. Alex has taken the Branch sales and information stall out to many events, given out

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thousands of leaflets and helped the Branch raise funds. Alex has now decided to stand down and I thank her for all her hard work. Any member is eligible to join the committee and if you'd like to find out more about this or other volunteering opportunities with the Branch, do get in touch with either me or another committee member.

Keeping in touch

The Branch Facebook page has been full of interesting photos and videos of butterflies, moths and their caterpillars this summer. And our twitter account has also been active spreading the latest butterfly news. Its a great new way to keep in touch with what is going on. The addresses are below and the sites are well worth visiting if you've not done so before.

Website: <http://www.hertsmiddx-butterflies.org.uk/>

Facebook: [@ButterflyConservationHertsMiddlesex](https://www.facebook.com/ButterflyConservationHertsMiddlesex)

Twitter: [@Bc_HertsMiddx](https://twitter.com/Bc_HertsMiddx)

Your Chance to Visit the Worlds Biggest Butterfly Collection

This Autumn, the branch have been offered the opportunity to see behind the scenes at the Natural History Museum in South Kensington.

The Museum's Lepidoptera collection contains approximately 8,712,000 specimens in 80,000 drawers. Many of these date back to the early 20th century or Victorian times.

The collections cover butterflies and moths from the UK and around the world. Very few are on public display. Geoff Martin, the Collections Manager has invited us for a free tour with a chance to examine the collections at close quarters.

The date is provisionally set for the morning of **Thursday 24th November**. Places are limited, so if you are interested please contact Malcolm Hull (details on the back cover) as soon as possible if you would like to join the trip.

For more details of the collections, visit the NHM website at <http://www.nhm.ac.uk/> and search for lepidoptera collections

Volunteering Opportunity at Millhoppers' Pasture

Do you want to be involved in your local greenspace? Are you interested in wildlife? Do you want to keep active and meet new people? Then we might just have the thing for you!

Butterfly Conservation is developing a volunteer group to assist with the management of Millhoppers Pasture, which is our Nature Reserve located between the villages of Wilstone and Long Marston near Tring. We will be holding a volunteer working day at the reserve on **Wednesday 9th November** where we will be joined by volunteers from the Chiltern Society. During the day we will be completing some much needed work on the wetland area within the reserve, removing some of the vegetation that is out competing other more sensitive plants such as the Marsh Marigolds.

However, if you are interested in being involved on a more regular basis, there are plenty of activities to be involved with including:

Scrub clearance, maintenance of the site furniture such as bridges, fences and signs, even keeping an eye on the sheep that graze the reserve.

If you would like to become involved with the reserve please contact Jez Perkins, the Reserve Warden, on 07756 699601 or jez@ashvale.co.uk.

Wed 23 Nov 2016 (8.00 pm)

Gerald Salisbury Memorial Lecture - Butterflies of Hertfordshire by Andrew Wood

Joint HNHS and Welwyn Natural History Society meeting at Welwyn Civic Centre, Prospect Place, Welwyn, AL6 9ER. This year's invited lecture will be by Andrew Wood, our county butterfly recorder and author of our forthcoming book 'Butterflies of Hertfordshire and Middlesex'. All very welcome to this annual joint event which is always a sociable occasion, wine and fruit juices will be served. There will be a small entrance charge.

Organised by: Hertfordshire Natural History Society

REMINDER:

Don't forget to submit your records for sightings to Andrew Wood (details on back cover) as soon as possible, so that the information can be included into the 2016 Annual Report.



If possible, please submit sightings electronically in a spreadsheet, with columns for grid reference, place seen (or site name), date, species, number seen and any comments.

News From Save Butterfly World

Butterfly World 2.0

Our Charity was registered in just 18 days, a record? We have decided to continue to campaign as Save Butterfly World with the charity ready to take on running the project if the owners give a green light.



St. Albans Supports Butterfly World

Despite having over 56,000 signatures on our worldwide petition we felt we need to also prove that those who live, work or play in the greater St Albans area want the project to reopen. Those who have already signed include The Rt Revd Dr Alan Smith, Bishop of St Albans; Anne Main, St Albans M.P; Kathy Ford, M.E.P and Rabbi Debbie Young-Somers and eight city councillors. Zoe Hancock, Principle of Oaklands College, Katie Carr, founder of Tommy and Lottie, and Jonathan Musk of AutoVolt Magazine plus a number of local councillors.

This is our statement and we hope you will sign up and spread the word;

“Butterfly World was a hugely popular visitor attraction that added greatly to the quality of life in St Albans:

- It was an important conservation project for wildlife, in particular for native butterflies
- It added to the education of the 12,000 school children who visited in 2015

- It contributed to the local economy as the second most visited St Albans attraction after the Cathedral.
- A huge amount of work has gone into creating a habitat where in just six years twenty-eight butterfly species became established. Huge credit must go to founder, Clive Farrell for his vision and Breheny Construction for saving the project and improving the habitat.

It is our hope that a way can be found to save the habitat and reopen this much missed resource.”

To confirm your support email us contact@savebutterflyworld.com or write to Save Butterfly World, 25 Valley Rise, Watford WD25 7EY.

Future Event

We are pleased to announce that Dr Richard Harrington will give a talk entitled “The Butterfly Collection” - an illustrated talk and recital of poems he has written about British butterflies - as part of 2016 SuStAinable St Albans Week. It will take place at **7.30 pm on Monday 21st November** in St. Albans Cathedral Library which the Dean has kindly agreed to our using without charge. Please put this event in your diary.

For further information or for a membership form please use the above addresses or visit <http://www.savebutterflyworld.com>

The Brown Argus Butterfly: a Variant and some Alarming Facts!, by Martin Johnson

The Brown Argus, *Aricia agestis*, is a feisty little butterfly which is widespread in our region, particularly on chalk grassland that harbours its preferred food plant, the common rock-rose. Despite its predominantly brown colour, the Brown Argus is a member of the *Polyommatus* genus of blues. Several small colonies of this bivoltine (two generations) species occur across Therfield Heath near Royston, where common rock-rose is abundant. Whilst walking on Church Hill, at the west end of the heath, on 4 June 2015 I was surprised to find a variant of this species, a female that had white spots with black bars on its upper forewings (Image 1).

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I was immediately intrigued by the apparent juxtaposition of the thin dark bars normally seen on the forewings of the Brown Argus (see, for example, Image 2 of a male, also taken on Church Hill) with the white spots seen on the forewings of the Scottish race of the Northern Brown Argus, *Aricia artaxerxes* (Image 3).

I took a few more “record shots” of the butterfly before losing it (I find the flight of the Brown Argus very hard to follow): this butterfly was never seen again. When I got home I sent a couple of images to Liz Goodyear, who published them on the Branch Facebook page. I also contacted my friend and the local recorder Alan Beale. Alan commented that he had seen this variant before on Therfield Heath and one or two other Branch members later commented that they or others had also seen it. Despite the fact that the butterfly is undoubtedly a simple variant of the Brown Argus, I was intrigued by the connection with the closely related Northern Brown Argus and decided to do a little bit of research. Firstly, I studied the spots on the undersides of the hind wings of my variant (Image 4) and compared them with the equivalent spots in the Brown Argus (Image 5) and Northern Brown Argus (image 6; Scottish race). Although there is normally some variation in composition of the spots between female and male



Image 1: Brown Argus Variant, Church Hill, 2015 (MJ)



Image 2: Brown Argus, Church Hill, 2015 (MJ)



Image 3: Northern Brown Argus, Perthshire, 2014 (MJ)



Image 4: Female Brown Argus Variant Underwings (MJ)



Image 5: Male Brown Argus Underwings (MJ)



Image 6: Northern Brown Argus Underwings (MJ)

(Image 5) Brown Argus butterflies, the black centres of the spots in the variant definitely appear to be slightly smaller : in other words, they are intermediate in appearance between the hind wing black centres of the Brown Argus spots and the hind wing spots of the Northern Brown Argus (Scottish race), where there is no black at all (Image 6).

I also looked at any similarities that the variant might have to the English race, *Aricia salmacidis*, of the Northern Brown Argus. This race closely resembles the Brown Argus in appearance and, although the upper forewing spots have faint white markings in some individuals, these are not as clear or as extensive as those seen on my variant. Some good photographs of the *Aricia salmacidis* race, which I have never observed in the field, can be seen in the recently launched field guide, “Britain’s Butterflies”, by Newland and Still (p 91).

Having concluded that I could go no further with my own research I was, however, fascinated to find a paper on the internet¹ in which DNA analysis of individuals of Brown Argus and Northern Brown Argus (both sub-species), collected from several sites across the length and breadth of Britain, had been carried out. Looking at both nuclear and mitochondrial DNA, the authors established that individuals collected from southern Britain (including Therfield Heath) were, as expected, genetically pure Brown Argus butterflies.

Likewise, individuals collected from Scotland were all genetically discrete and pure Northern Brown Argus butterflies. However, within a 150 to 200 kilometre wide zone of Northern England and North Wales there was clear evidence of hybridisation between the two species. The timing of the original hybridisation was unclear: it could have been post-glacial or more recent in origin. Given that interbreeding between the two species has clearly given rise to viable hybrids, biologists might argue that Brown Argus and the English sub-species of the Northern Brown Argus, *Aricia salmacis*, are in fact the same species.

There is a further problem. Despite its apparent sedentary nature, the southern population of Brown Argus is moving northwards quite rapidly, at around 5 kilometres per year, probably aided by recent warm summers and, of course, climate change. Soon this population will be mixing with the butterflies in the hybrid zone of Northern England and North Wales, leading in all probability to further hybridisation. Worse could follow: it is estimated that by the year 2100 these butterflies will be mixing with the Scottish Northern Brown Argus butterflies *Aricia artaxerxes*. If hybridisation were to occur, this unique sub-species of the Northern Brown Argus would effectively become extinct.

So, should we cull populations of Brown Argus before they reach the Scottish Northern Brown Argus colonies, just as we did to prevent our ruddy ducks from hybridising with the Spanish white-headed ducks, or should we remove some colonies of Scottish Brown Argus from the wild and breed them in captivity, to prevent them from extinction? The mind boggles. However, there is a ray of hope. The continental species of Northern Brown Argus, the Mountain Argus (*Aricia artoxerxes montensis*) overlaps with the Brown Argus in both Northern Denmark and Lithuania, without any evidence of hybridisation: perhaps the genetic differences between the univoltine *aricia artoxerxes* and the bivoltine *aricia agensis* would be too great for hybridisation to occur.

So, next time you see one of our smallest butterflies sipping nectar from a flower or basking in the sun, just remember what a conservation headache it is going to become in future years!

Reference 1: Mallet, J; Wynne, I.R and Thomas, C.D. (2010) Hybridisation and climate change: Brown Argus butterflies in Britain (Polyommatus subgenus *Aricia*). *Insect Conservation and Diversity* (2010.) [\[http://www.ucl.ac.uk/taxome/jim/pap/mallet%20aricia%2010.pdf\]](http://www.ucl.ac.uk/taxome/jim/pap/mallet%20aricia%2010.pdf)

Silver-spotted Skipper Seen in Herts., by Nick Bowles and Richard Soulsby

The article below was originally produced for the Upper Thames Branch (UTB) newsletter ... editor.

Some butterfly species are renowned travellers, such as Painted Lady, Clouded Yellow, and Monarch. But others, such as Black Hairstreak, rarely stray far from where they emerge from the chrysalis. Silver-spotted Skippers (SSS for short) come into the latter category, and are notoriously slow to colonise neighbouring sites. But one individual, a Christopher Columbus among SSS, ventured far from its home last summer and arrived by chance in the Tring garden of UTB Chair Nick Bowles. Nick describes this rare event:

“On 26th August I was admiring the unusually large numbers of Small Tortoiseshells (7) and Common Blues (4) in our small, town garden (20 x 12 m), when I saw what I first thought was a Small Skipper feeding on a buddleia inflorescence. I crept closer to check for possible confusion with a late Essex Skipper. I was amazed to realise that it was a Silver-spotted Skipper! I rapidly took some shots on my mobile phone before going to fetch my camera. Just as well; despite the poor quality of the four mobile shots, by the time I returned with the SLR the skipper was gone, and though I searched three more times that day there was no sign of it.

“Our garden is almost all tall meadow with almost no short grassy areas, so the Silver-spotted Skipper wasn’t drawn to that feature. We do have many breeding species of butterfly and moth for a small, town garden, because I plant larval food plants in preference to adult attractants (though we have those too – like buddleia) and possibly the large amount of movement of other butterflies was an added attractant to this male SSS.”

Two of the photos are reproduced here and illustrate the identification, especially the shot of the undersides of the wings showing the characteristic pattern of silvery-white spots. The dark streak of the sex brand on the uppersides of the wings, and the orange-and-black colouring of the antennae, reveal it to be a male.

Nick promptly alerted the UTB Species Champion for SSS, Richard Soulsby, about this remarkable find. Richard replied:

“Your sighting is very exciting SSS news! It is probably the most

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northerly confirmed sighting in Britain of recent years. So where has it come from? I think it is unlikely to have been introduced by deliberate human intervention. SSS are not sufficiently spectacular to tempt people to make an unauthorised transplant of adults, in my opinion, and they are apparently a difficult species to rear from eggs. So it seems more likely that it is a long-range vagrant from one of the stronger northern colonies.



Silver-spotted Skipper on Buddleia. Photos © Nick Bowles

“It is the only example I know of a SSS being seen ‘out-of-place’, not on a patch of suitable habitat, and the only one nectaring on buddleia. And of course, if it hadn’t settled under the nose of someone who knows butterflies intimately, it would have gone completely unnoticed.”

One wonders how many other SSS fly off like this every year, possibly over a wide range of directions and distances, and simply are not recognized. There seem to be two possible explanations: either it is a short-range vagrant from an unknown population that is somewhere in the vicinity of Tring, or (more likely) it’s a long-range vagrant from one of the known populations.

There is a network of small SSS colonies in the Chilterns north-east of Princes Risborough. Based on recent observations, Beacon Hill near Ellesborough has the most northerly known colony, and seems to be strengthening. The nearby colonies at the Grangelands reserve and Great Kimble Warren are also doing well. Nick’s garden is 9.5km northeast of Beacon Hill – an easy excursion for some species but a long-haul flight for SSS.

Research has revealed how reluctant this species is to fly to

neighbouring sites. A study by the Highways Agency in 2010 found that of more than 1,200 SSS marked, released and re-captured at the three main areas of Aston Rowant National Nature Reserve over a period of some weeks, none had travelled between the three areas, which are separated by less than 1km.

Longer-term evidence comes from a series of extensive surveys of SSS in southern England undertaken by researchers from the Universities of Leeds, York and Exeter at nine-year intervals between 1982 and 2009. They found only five cases of new colonies establishing 10km or more from the nearest colony found in the previous survey, so movements of 10km are rare but possible. Moreover, there must be many more vagrants that fail to establish a colony (like the lone male reported here) than those that succeed.

There is one previous contender for an unusual SSS sighting in this area, made on 21st August 2005 by Malcolm Hull of Herts & Middx Branch at Aldbury Nowers, which is 4.5km further northeast of Tring. Frustratingly, Malcolm did not have a camera with him on that day, but Nick's sighting adds weight to the evidence that a SSS could fly the 14km or more from the Ellesborough / Granglands / GKW region to Aldbury Nowers.

It is said by some that the most important thing for the survival of a butterfly species is not whether existing colonies go extinct but whether new colonies are formed. If this is so, then vagrants such as these are not just curious anomalies but are arguably the most important individuals in a population, as without them new colonies could not be formed.

References

Adey, J.P. and S.F. Wilson, 2010. The impact of the M40 motorway on populations of Chalkhill Blue *Lysandra coridon* and Silver-spotted Skipper *Hesperia comma* at Aston Rowant National Nature Reserve. *Br. J. Ent. Hist.* 23: 7-19.

Davies, Z.G., R.J. Wilson, T.M. Brereton and C.D. Thomas, 2005. The re-expansion and improving status of the silver-spotted skipper butterfly (*Hesperia comma*) in Britain: a metapopulation success story. *Biological Conservation* 124:189-198.

Lawson, C.R., J. Bennie and 14 others, 2013. The status and conservation of the silver-spotted skipper *Hesperia comma* in South-East England 2000-2009. University of Exeter, Exeter, UK.

Exciting News - Long-tailed Blue, by Malcolm Hull

On 10th August, Terry Lyle was in Tower Hamlets Cemetery Park, Mile End. Terry recounts his exciting find “A needle in a haystack has nothing on this. When I found the butterfly in one of our wildflower meadows, Lockhart Field, I was not looking for butterflies and had no net or camera with me. In overcast weather, I spotted it at rest, wings closed on a grass stem. I realised it wasn’t the Common Blue I had expected, as the underwing was quite different. In particular there were two prominent spots near each hind wing margin, next to a delicate little “tail” projecting from each wing.

Thinking quickly Terry made a dash to the nearby Soanes Centre, collected a butterfly net and container and returned to the meadow where the butterfly was still in the same spot. It was captured and held overnight, with a report posted on the sightings page of the Branch website. I saw this and was able to visit the next morning to see the butterfly, which turned out to be a fairly tatty female, before it was released back into the meadow. This was an exciting sighting for me as I have never seen this species in the UK.

How rare is it in the UK?

The butterfly is a rare migrant that cannot withstand the UK winter. Butterflies migrating to the UK in August lay eggs which hatch out from mid-September, so peak numbers are late in the season, a similar pattern to Clouded Yellows. Herts & Middx records for this species are all in Middx. Singles were seen at Greenford (1945), Finchley (1950) and Heathrow (1980). The only year with multiple records is 1990, when two small colonies, were established in Kensington (Kensal Green Cemetery) and Islington (Gillespie Park near Arsenal Station), with maximum counts of 10-12 individuals at each location. The next record was from Tower Hamlets (East India Dock), a single male on 10th August 2012. Terry’s record is the only other outdoor record in our branch area.



Long-tailed Blue
Photo © Kenneth Greenway

Nationally it is rare, but becoming more common. In the century before 1945 there were about 30 records in the whole country. In 1945, 38 were recorded and the other years with significant invasions were 1990, 2013 and 2015. Last years sightings were all late in the season and along the south coast from Kent to Dorset, with most in Sussex

Could the Butterfly Breed at the Tower Hamlets Site or elsewhere in Herts & Middx?

Tower Hamlets Cemetery is one of the most successful sites for butterflies in Middx, with a varied woodland and meadow habitat with 31 butterfly species recorded there in recent years. The larval foodplants are a wide range of legumes. Everlasting Sweet Pea is a favourite, which has been used in Sussex. The butterfly was seen on this plant at Kensal Green and there is a good amount of it present in Lockart Field. Bladder Senna is another favourite and that was used successfully at Gillespie Park. Any legume with largish pods will probably do. Broom has been used in Sussex and garden peas are also popular.

Is it rare overseas?

The butterfly is considered to be one of the most common of the 6,000 Lycaenid butterflies worldwide. It is a commercial pest species in some parts of the world where peas are grown commercially and caterpillars are sometimes imported on Mange Tout peas. On 25th July this year Alice Smith reported one in her bathroom in Camden, believed to have come from peas and another indoor sighting was reported from Sudbury in Suffolk on 23rd August 2016. The butterfly is very widespread and resident throughout southern Europe, southern Asia, the whole of Africa and Australia. It migrates to many areas of northern Europe each year.

Will there be more sightings?

I'm aware of no other reports from the UK until 13-14th September, when three were reported from Sussex. But I'm writing this right at the start of the main flight season and we will be watching out for more during September and October. Look at BC branch websites, Twitter and Facebook pages for the latest news.

Finding a Mate – Mate-Location Behaviour, by Peter Clarke

Butterflies you see flying in the wider countryside are more likely to be males rather than females. Think of the Brimstone and the Orange Tip, for example. However, those you see in your garden feeding on buddleia will probably be more equally mixed. Males are generally more active if they are to breed and find a mate but species differ in their strategy to locate virgin or receptive females who in turn will be attracted to males using visual cues as well as pheromones released by the males. For males to attract females is probably one reason why many males are more brightly coloured.

Males of many species adopt perching mate-locating behaviour where they attempt to find a landmark site or vantage point so that they can be easily detected by receptive females or be close to where females will be emerging. The male Speckled Wood, for instance, will often alight on a leaf in a sunny and sheltered spot then wait for any females which may be flying around close by. If any such female approaches, the male will chase after her and try to mate with her. Most of these males will also hold and defend territories but for how long is unclear. There is some evidence that some males establish more than one territory a day. See table below (Shreeve) for other species, relevant to the two counties, using this behaviour. You will note that many of the species which use perching mate-locating behaviour also use patrolling mate-location behaviour depending on air temperature, habitat vegetation, population density and possibly competition from other conspecific males. In the last decade or so, thanks largely to Andrew Middleton and Liz Goodyear, much research has been done on some of our tree-topping species which also adopt territorial activity so I've added "x"s in the table for the Brown, Purple and White-letter Hairstreaks.

Patrolling mate-location behaviour is often more successful in finding receptive females than perching because it involves actively searching for the females rather than the sit-and-wait technique deployed by the 'perchers'. If numbers of receptive females are high in the habitat then the perching mate-location behaviour may be more cost-effective for some species. There is a cost in patrolling because males must have the capacity to fly for certain periods of time which they do by imbibing nutrients from nectar and other food sources. All the Pieridae (whites) family adopt patrolling as their means of searching

for a mate. In the spring, you often see a male Brimstone flying or patrolling up and down a hedgerow. As a general rule, for species where males only patrol in searching for females they will not hold territories. This is probably because of the nature of their behaviour - mobility and area coverage considering the energy costs involved in such activity and not wasting energy on defending territories by chasing off intruders.

It is unclear if males of any of the tree-canopy species like the Purple Emperor deploy patrolling behaviour in any way in searching for females. I have read, for example, that some male Brown Hairstreaks scan blackthorn hedges for females so perhaps this constitutes patrolling behaviour to some extent. Do male Purple Emperors search sallow trees if virgin females seem to be in short supply in the males' territorial areas? Many questions in butterfly behaviour remain unanswered so with time and patience you can learn a lot by observing why butterflies act in a certain way.

Species	Mate-Locating Behaviour		
	Perch	Patrol	Territorial
Small Skipper*		x	
Essex Skipper*		x	
Large Skipper	x	x	x
Dingy Skipper	x	x	x
Grizzled Skipper*	x		
Clouded Yellow		x	
Brimstone		x	
Large White		x	
Small White		x	
Green-veined White		x	
Orange Tip		x	
Green Hairstreak	x	x	x
Brown Hairstreak	x	?	x
Purple Hairstreak	x	?	x

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Species	Mate-Locating Behaviour		
	Perch	Patrol	Territorial
White-Letter Hairstreak	x	?	x
Small Copper	x	?	x
Small Blue	x	?	
Brown Argus*	x	x	
Common Blue*		x	
Chalkhill Blue		x	
Holly Blue*	?	?	?
Duke of Burgundy	x	?	x
White Admiral	x	?	x
Purple Emperor	x	?	x
Red Admiral	x	?	x
Painted Lady*	x		
Small Tortoiseshell	x	?	x
Peacock	x	?	x
Comma	x	?	x
Dark-green Fritillary		x	
Silver-washed Fritillary		x	
Speckled Wood	x	x	x
Wall	x	x	x
Marbled White		x	
Gatekeeper	?	x	
Meadow Brown	x	x	
Ringlet		x	
Small Heath	x	x	x

The '*' after the species name - taken from E. Pollard & T. J. Yates (1993), *Monitoring Butterflies for Ecology and Conservation*, Chapman & Hall, London

Reference:

Tim G. Shreeve (1992). Mate-locating behaviour. Roger L. H. Dennis (ed). *The Ecology of Butterflies in Britain*. 34-42. Oxford University Press, Oxford

The Butterflies of Hertfordshire and Middlesex

If you are looking for that special Christmas present or want a reminder of summer then don't miss the pre-publication offer of only £19.99, included in this issue, for Andrew Wood's new book 'The Butterflies of Hertfordshire and Middlesex'.

This book, produced by the Hertfordshire Natural History Society with support from our Branch features a comprehensive look at all the species found in our area.

There are hundreds of photographs, all taken in Hertfordshire and Middlesex, showing the butterfly and its behaviour. Each species section looks at conservation measures, trends in distribution and abundance and tips on how to see the butterfly.

An introductory section looks at habitats and landscapes and how they relate to butterflies in our area and there is a detailed gazetteer of over 50 sites that are good places to see butterflies. With information about releases, introductions, and conservation status this is a comprehensive review of our butterflies.

There are distribution maps showing each species' status now, 15 and 30 years ago so that you can quickly see how the butterfly is faring.

The book is dedicated to the **4800** people who have sent in records in the last 30 years. Without your contributions this book would not exist, so if you want to see what local recording can tell us this is the book for you.

Moth Night Reports, from John Hollingdale

Stanmore Country Park, Saturday April 9th 2016

At this time of the year the weather can be unpredictable. Margaret said, after looking at the sky, we would be lucky to see any moths. She was almost right. The sky was clear and there was little wind. We met Alistair in the car park and started to set up the equipment in the field nearby. Thank you Alistair for having a Swiss knife. A wire had pulled out of a connection and Alistair put it back with a screw driver. This after finding the garage mice had chewed a few holes in the sheet.

Rob then turned up with a damaged chin. That was sorted. We waited until, in one five minute period, three moths turned up; one Small Quaker, one Common Quaker and a No 6. For the uninitiated this is: BF6 *Dyseriocrania subpurpurella* common name: Common Oak Purple. We then got colder and colder so with no hope of seeing any more moths we departed. The car thermometer was showing 3.5c when we got home.

I checked last year's report and we saw 13 species of moth in similar weather conditions. That's nothing for you.

National Moth Night at Stanmore Country Park, Friday June 10th

The weather was very good; a cloudy still evening. Nine people attended including some very experienced people who were very good at potting moths and identifying them. Thank you all very much.

We did see a Lime Hawk-moth which I believe was the main reason for having NMN on this weekend. Other notable macros were Oak Tree Pug, Peach Blossom (voted the prettiest moth of the evening) and Peppered moth. Some discussion then took place about whether the change from black to white was evolution or not. Also among the 25 macros were White Ermine and Orange and Buff Footman.

A total of sixteen micros were also identified with some assistance from Colin Plant. We finished at midnight

My totals in the previous evening from my back garden where 16 macros and six micros from a Robinson trap that had been left out all night.

I can send a full list to anybody who is interested.

Lady Gilbert's Orchard, Grimsdyke. Wednesday 5th May 2016

The weather behaved itself on this night and five of us gather around the light to await developments.

The first moth to arrive was a Lunar Marbled Brown and by the end of the evening more than a dozen had appeared. Brindled Pugs were also in numbers approaching ten. Other moths included Waved Umber (two), Pebble Hook-tip, Orange Footman and Sandy Carpet. New to the site were Iron Prominent and a late Chestnut. Also late moths were Common and Small Quakers and a Hebrew Character

The only micro successfully identified was a *Eriocrania subpurpurella*.

Two more micros have been sent to Colin Plant for IDing. I have looked at them but the conclusions I reached seemed improbable; either not recorded in Hertfordshire at all or only seen in two locations in the county, according to Colin's book 'the Moths Of Hertfordshire. Will let you know when he gets back to me, which on past history may take some time. He is a very busy entomologist.

The beetle seen turned out to be *Necrodes littoralis* (the Shore Sexton beetle). I sent a photo to Max Barclay of the Natural History Museum who identified it for me; thank you Max.

Postscript: Colin did get back to me quite promptly; thank you Colin. The two micros were *Esperia sulphurella* and *Tachystola acroxantha*. The last I should have known but it is a new record for this site.

My thanks to Bob Black for his help on this night

Stanmore Country Park, 8th August 2016

The weather was good this night; very warm. The date was picked to coincide with the flight period of the Oak Processionary Moth. I was curious to see if it had reached this nature reserve as I had had one in my garden in Harrow the previous year. However none appeared. There were 10 of us this evening including Dick and Barbara our visiting experts, one lady from Herts who also knew a thing or two about moths and Mr Shah and his two children. It's good that people come along who know nothing about moths. Marion, was there to do some of the capturing, with her husband Norman.

We started off with an Olive which was also the last moth to arrive. There were eighteen macro species including eight which had turned

up on NMN. The pick of these were two Jersey Tigers. Amongst the other macros were Black Arches, Ruby Tiger, Small Phoenix and Tree Lichen Beauties.

We have also identified eleven micros, the pick of which was the uncommon *Epiblema costipuntana*; there was ragwort all around us. We packed up after two and a half hours.

There is a little box now in the expert hands of Colin Plant with the micros I couldn't identify. I can send a list of species seen that night if anyone is interested. We will be back in the same month next year to check if the Oak Processionary Moth has arrived. I don't think it will be long.

Field Trip Reports

The following are reports from a selection of our field trips... editor

Stanmore Country Park - 30th April 2016, by John Hollingdale

A sunny day at last. Field Woodrush, Bugle, Cuckoo Flower, Dog Violet and Celandine were blooming in our first meadow. Careful said Joanne (the botanist); it may not be Dog Violet. We will bring a flower back home next time we visit to make a proper identification.

In the next meadow, a Holly Blue and a Green-veined White were flying. The botanist spoke up again and what we thought was Meadow Foxtail grass could be Marsh Foxtail; the meadow being very wet. More investigation s required. We then made our way to the S/W corner of Wood Farm which adjoins the Country Park. Here in a sheltered spot an Orange Tip and a Small Tortoiseshell were seen.

We passed back over a new bridge and in what is known as the gas ride, a Peacock butterfly was sunning itself. On the rest of the walk, Marion pointed out a Red Kite flying overhead and some of the party spotted one of the resident Muntjac deer. A pleasant morning was enjoyed by all.

Ruislip Woods NNR, Wednesday 6th July 2016, by Dick Middleton

This was a joint meeting with the Ruislip and District Natural History Society and was well supported with up to a couple of dozen attendees at the start. The aim was to see White Admiral, Purple Emperor and Silver-washed Fritillary. However, the first port of call was the area known locally as the Water Board Field (although currently easily

accessible it is owned by Affinity Water). The field is south of Cope Wood, at the back of Ruislip Lido car park. The first impression for those who attended last years visit is the increase in grass and amount of scrubbing over that has taken place. While not as impressive as some years there were good numbers of Meadow Brown and Marbled White while the list was added to by a few Large Skipper and Small Skipper, a Speckled Wood and Purple Hairstreak was noted by some on the woodland edge and a Comma and a Painted Lady added some colour to the proceedings. Moving on through Cope Wood, Speckled Wood was added for those who had missed the earlier one and then, along the track approaching Poor's Field the targeted White Admiral was found, with a total of four seen.

The long climb up through Park Wood to the area by St Vincent's Nursing Home was now taken by a diminishing number. It was now that the Leader realised that, for some people, hunger overrules the prospect of seeing Purple Emperor ('beer o'clock' being declared by one attendee). A Purple Hairstreak and at least a couple of Speckled Wood were easily seen but it took a breakaway group, who had gone out into the road, to find the first Purple Emperor. Eventually, most if not all had views of one and, finally, two spiralling above the nearest oak tree. A fitting finale.

So, given that Silver-washed Fritillary was a very outside chance, it was mission accomplished. Just one thing to remember for the future and that is to advise attendees to bring a picnic!

Bovingdon Brickworks, Saturday 14th May 2016, by Liz Goodyear and Andrew Middleton

At the invitation of the Box Moor Trust this was the Branch's first visit to Bovingdon Brickworks. The site at Bovingdon is a mosaic of different habitats created when the brickworks quarry was restored to grassland which is adjacent to the still active brick making business. The site is just west of the village of Bovingdon in west Hertfordshire. The key species for the day was Dingy Skipper.

The day dawned cold and as we drove over it was showing only 8° centigrade on the car temperature gauge!!! This wasn't good but the sun was trying very hard though. Unfortunately as a result during those brief moments of sunshine, in the sheltered locations where the Dingy Skipper was roosting it had become warm enough that they had flown off. This meant we weren't able to find any hugging to knapweed seed heads which we hoped we would.

Hertfordshire and Middlesex

During the morning, we were joined by several Box Moor Trust volunteers and Branch members and a good time was had by all. We were shown some of the recently planted Kidney Vetch plants as part of the Box Moor Trust's vision to encourage Small Blue to colonise the site. Those attending contributed their own knowledge and experience to everyone's mutual benefit. We do hope that this walk will become a regular event in the walks programme as it is truly a lovely site and well worth visiting at any time during the butterfly season.

The following were seen: Dingy Skipper 7, Orange Tip 4, Small Heath 1, Speckled Wood 2, Brimstone 1, Green-veined White 7, Large White 1, Peacock 2, Latticed Heath 1, Burnet Companion 1.

Hampstead Heath, Sunday 10th July, by Andrew Middleton

Seven or eight people met in unpromisingly dull conditions by The Spaniards Inn at noon, where we discussed the roadside elms on which a few White-letter Hairstreak eggs had been found during the winter. The group then walked for ten minutes to enter the wood near the radio mast where Liz Goodyear and I had found a Purple Emperor *Apatura iris* assembly area in 2015, after a few years of trying. Weather forecasts came true and the sky cleared early afternoon to a bright blue sky and wall to wall sunshine. As the sky was brightening, I returned to Spaniards Road with one observer who had soon to leave, and some White-letter Hairstreak activity took place on the side of some straggly elms. Returning to the group, and after an hour or so watching the edge of the canopy, no Purple Emperors were seen in the most easily visible patrol and perch area, which was a bit disappointing.

For those interested, our initial 2015 sighting was of two males chasing over the oaks maybe 75m away, viewing up through a gap, and further sightings of generally one male were made nearby on the edge of the wood, with occasionally 2-3 males seen chasing (Frank Nugent, 2015). This suggests a focal point somewhere hidden up over the oaks and ash, and a secondary overspill perch and patrol area nearby on the visible edge.

Nice essay son, but we had yet to see iris, so not to be beaten, I went in the wood and lay on the floor looking up. Before the men in white coats arrived, several large butterflies could be seen chasing from time to time over the oaks, with just fleeting views from below and no perching seen. The remaining group members came over and after

some time most seemed convinced that we had two Emperors and at least one Red Admiral. Liz and I have, over many years, become much better at telling emperors apart from admirals in rapid flight through leaves and dappled light, or from 300m away, so I was perfectly happy to enter this data.

It is worth considering that the year was not especially early for Emperors, with Robert Callf bagging two at Whitewebbs around 1pm on 4th July, followed by sightings for us in Epping Forest on 5th, with none seen here on earlier stake-outs. I was unable to find parking on a late July passing visit to the heath, however Tony Clancy squeezed out a sighting here on July 16th ~ 1 Purple Emperor seen at 12.39 at Hampstead, by mast no further sightings. Also White-letter Hairstreak ~ and I am unaware of any other monitoring that took place here.

In summary, occupancy was recorded at this assembly area for a second year, and monitoring was not sufficient to draw conclusions as to relative numbers. I have nothing to confirm that the heath ecologist has included iris breeding habitat as a management consideration, but I hope at some point it will be. I have provided information and links on iris study and ecology, and have suggested to be aware of salix (sallow, crack willow etc) numbers across the heath, so that not too many may be cut in any one year, and that in the long term, an increase in salix should help conserve and strengthen the population in this landscape.

Norton Green, Thursday 14th July, by Peter Clarke

It was quite an eventful day as it turned out at Norton Green today in intermittent sunshine and a light breeze. Six of us arrived by 10:30 am to start our walk down the track. Just a few Ringlets and a Comma to begin with but about three-quarters of the way down the track we stopped near where there are tall oaks on both sides. In an alcove on the right we saw at least 3 Purple Hairstreaks dancing around about 10 feet up one of these oaks just before 11 am. We were also starting to see quite a few Purple Hairstreaks low down (*photographs are on the next page - editor*). Did the heavy rain on Tuesday wash off the honeydew on the oak leaves and hence force the insects to come down?

We headed towards Pigeonswick Cottage and crossing Burleigh Meadow on the way. It was clouding over now at around 11:30 am so we didn't see too many butterflies flying around as we entered the meadow but many Skippers and Marbled Whites were about just



Purple Hairstreak, photos © Peter Clarke

sitting on a grass stem or flower head affording good photo opportunities. Returning towards Norton Green Common in the open area I had noticed that my generous offerings of shrimp paste and tuna were apparently ignored by any Purple Emperors. As we entered the meadow at just after noon the sun reappeared. Someone spotted a Silver-washed Fritillary glide over the western side so perhaps things were starting to look up. At 12:15 pm, Helen Lumley saw something dark and big flying towards a tall silver birch tree on the south-western edge of Watery Grove about 20 metres in from the track. And there he was, a beautiful male Purple Emperor, about 15 feet up the birch and stayed there for at least 45 minutes opening and closing its wings. Magnificent views were obtained of this very fresh specimen, possibly emerging from a nearby willow earlier today.

We ventured into the field south of Watery Grove at about 12:30 pm and aside from many Skippers, Marbled Whites, some Ringlets and Meadow Browns we saw a magnificent male Silver-washed Fritillary, again freshly emerged, on a clump of brambles on the eastern edge of Newton Wood. We returned to the common half an hour later to check on the Purple Emperor, and he was still there – slightly further up, in all his glory.

Species counts: Small Skipper 30+, Large Skipper 2, Large White 1, Small White 10+, Green-veined White 1+, Purple Hairstreaks 10+, Silver-washed Fritillary 3+, Purple Emperor 1, Comma 5+, Marbled White 20+, Gatekeeper 3+, Meadow Brown 30+, Ringlet 50+

Regents Park, Friday 22nd July, by Malcolm Hull

This was a new walk, aimed at those working in central London during the week. Regent's Park is one of the largest un-built areas in central London. It provides a range of different habitats with semi-

natural lakes, canal embankments, long & short grassland and formal planted gardens. 21 species of butterfly and 230 moths have been recorded at the site. The butterflies include White-letter Hairstreak and Marbled White, which are both uncommon in this area. Starting at Regent's Park tube station on a warm but cloudy day we walked through the formal Avenue Gardens. The selection of plants looked promising for nectaring butterflies, though all we saw here were Small Whites, feasting on the *Verbena bonariensis*. Further north we found several areas on long grassy wildflower meadows, where substantial areas had been left uncut. Meadow Browns were doing well here as there were a considerable number of wild flowers in amongst the grass. Also Small/Essex Skippers were fairly numerous. Walking back via the lake and the wildlife area (which is quite shady) we picked up a few more species. Overall 80 butterflies and 9 species seen in just over one hour, which is an encouraging total for this area. There's no doubt that central and inner London have improved considerably in recent years, both in terms of habitat quality and number of butterfly species and individuals seen. Sites like Regents Park provide a very valuable resource, helping butterflies spread into surrounding areas.

In the time available we saw only a small portion of the park and next year we will arrange a longer walk, probably at the weekend so more habitat types can be explored. The full list of sightings was Small White - 8, Meadow Brown - 51, Small Skipper - 1, Essex Skipper - 6, Small/Essex Skipper - 8, Gatekeeper - 4, Red Admiral - 1, Large Skipper - 1, Small Tortoiseshell - 1, Speckled Wood - 1, Silver Y Moth - 1.

For more information about the park and its habitats visit the wildlife section of their website at <https://www.royalparks.org.uk/parks/the-regents-park/things-to-see-and-do/wildlife>.

Return to Mudchute in The Isle of Dogs, by David Chandler

In 2006 I wrote about the Mudchute Local Nature Reserve in the magazine. I used to visit the site in my lunch-hour when I worked in Canary Wharf. The site is a green space near the City Farm in London's Isle of Dogs – you may recall it once featured on the map in the opening credits of the serial *Eastenders* as the green bit just before the bend of the Thames above Greenwich; and being situated in the most southern-eastern corner of the vice county of Middlesex, is also

just over on the north-west bank of the River Thames from The O2.

Eight years have passed and I'm a retired Granddad now. In mid-July my daughter Linda, my son-in-law Trevor and my grand-daughter met me for lunch in one of the restaurants in Canary Wharf and, afterwards, when Trevor had gone back to work, Linda, little Maria & I paid a stop-off visit whilst on their way back to their home in south London to Mudchute LNR to see the animals in the City Farm and to look at the reserve's butterflies.

In the 2006 season I found 17 different species over the spring & summer season so we were hopeful of seeing some butterflies in the warm twenty four degree sunshine. We entered the site at the Crossharbour Lane / ASDA end and walked a circular route around the perimeter.

By the entrance there were lots of Meadow Browns dancing in the tall grass. Adjacent to this there is a small copse/hedgerow along the pathway that follows the DLR track and here Large Skippers, Small Skippers, Essex Skippers and Speckled Woods were found. Along the top of the embankment that skirts the perimeter of the site we found numerous Gatekeepers and good numbers of Commas, Peacocks and Small Tortoiseshells on the many Buddleias' found on the site. Towards the far end of the park near the City Farm a Red Admiral was seen then, Small and Green Veined Whites put in an appearance. Returning to the top end of the park near to ASDA Superstore end is a wild grassland area where we found more Meadow Browns and a final pleasant surprise near the exit gate to Mudchute DLR station, in the spotting of some early second-brood Common Blues.

We were very pleased to find a dozen different butterfly species in such an urban location, although I could not help but notice that since my last visit the site has become overgrown because nowadays many of the secondary pathways were difficult to navigate. Pushing Maria's buggy Linda struggled in places. Further, and perhaps of greater concern, the large grassy areas at the north eastern end are becoming scrubbed up and so the small copper and common blue butterflies' food plants, that were easy to find in 2006, may soon be squeezed out by the more aggressive hardier woody plants that have moved in.

People say "you should never go back to old haunts" however it was a pleasure to pay a visit to my past and despite my concern of scrubbing up, it should not take too much effort to bring the park back to its fine bio diverse habitat condition I enjoyed in the early 2000s.

Dark-green Fritillary Encounter, by Peter Fewell

I would like to contribute a story of an encounter with a Dark-green Fritillary just outside of the Aldbury Nowers reserve a couple of seasons ago. On first observations I thought this character was a Comma due to its ragged appearance. Once settled refuelling on a flower I realised this was an encounter with a fritillary. For every passing insect this pugnacious butterfly would chase vigorously before eventually returning to the flower. Sometimes it flew up by the hedgerow coming perilously close to danger. For along that hedgerow odonata were patrolling, both brown and migrant hawkers. Somehow this butterfly managed to avoid becoming lunch and return to the flower. Despite the damage to the wings this veterans flight was unaffected and a real treat to sit and watch. Some photographers may chose to ignore these far from perfect specimens but I personally think they often have a better story to tell.



Dark-green Fritillary. Photo © Peter Fewell

New Members' Day, 16th July, by Ian Small

We had a new venue for New Members' Day this year, following the closure of Butterfly World, so we met at Notcutts Garden Centre in Smallford, and thanks go to Mandy Floyd for making all the arrangements.

We began the day by examining the contents of the moth-trap run overnight. Given the placement, hopes were not high, but the contents exceeded expectations, with 55 species noted. Many caught the eye of new members, including the Buff Tip and the Swallow-tailed moth. John Murray also had the task of explaining that there really is a moth called the Uncertain.

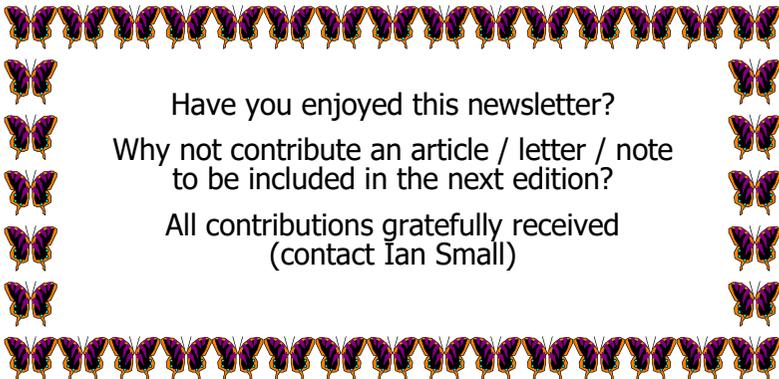
After moving back indoors, new members were given a series of short introductory talks, including introductions to the commoner butterflies of our area, information on how to record butterflies and also how to get more involved with the Branch.

We visited the adjacent Ellenbrook Fields for our post-lunch butterfly walk.



New members gathered around the moth trap

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Committee Members

Chairman and Acting Treasurer: Malcolm Hull

11 Abbey View Road, St. Albans, Herts. AL3 4QL.....(01727) 857893
malcolmhull@hertsmiddx-butterflies.org.uk

Vice-Chairman: Margaret Noakes

Old Church Cottage, Chapel Lane, Long Marston, Herts HP23 4QT.....(01296) 660072
johnandmargaret@noakes.co

Branch Organiser: Liz Goodyear

7 Chestnut Avenue, Ware, Herts., SG12 7JE (01920) 487066
elizabethgoodyear@talk21.com

Membership Secretary & Newsletter Editor: Ian Small

59 Penn Way, Letchworth, Herts. SG6 2SH.....(01462) 677654
ian-small@virginmedia.com

Committee Secretary: Margaret Huitson

36 Southfield Park, North Harrow, Middx. HA2 6HE(020) 8863 2077
hollhu@yahoo.co.uk

Records Collator: Andrew Wood

93 Bengoe Street, Hertford, Herts. SG14 3EZ(01992) 503571
zoothorn@ntlworld.com

Moth Officer: John Murray

Field End, Marshalls Heath, Wheathampstead, Herts. AL4 8HS (01582) 833544
J.B.Murray@open.ac.uk

Nigel Agar

34 Oakfield Avenue, Hitchin, Herts. SG4 9JB(01462) 459870
nigelagar452@btinternet.com

Paul Busby

113 Southbourne Gardens, Ruislip, Middx, HA4 9TA 07749 709422
buzz113@hotmail.co.uk

Millhoppers Reserve Manager: Jez Perkins

23 Miswell Lane, Tring, Herts.HP23 4DD..... 07756 699601
jez@ashvale.co.uk

EIG Liaison: Roger Gibbons

rjg@butterfliesoffrance.com

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