

Butterfly  
Conservation

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**HERTFORDSHIRE  
AND MIDDLESEX  
BRANCH NEWSLETTER**

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**Do Purple Emperors in England mimic the strange Sub-Saharan African sub-tropical butterfly behaviour phenomenon of Koppieing?**

**by David Chandler**

Listening to Liz Goodyear and Andrew Middleton speak at the National AGM on their Purple Emperor study about the butterfly's behaviour was fascinating. I was particularly interested in relation to Purple Emperor males' gatherings during the late morning by gradually moving uphill towards a prominent master tree to establish territories; it set me thinking of a parallel butterfly event I had observed in Africa.

A few years ago I visited relatives in Qua Zulu Natal in South Africa, but, unlike prior Christmas-time visits, I went in the southern

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hemisphere's late winter/early spring – which is a dry season when it is about as warm as a typical English summer. As you would imagine at the 28 degrees S latitude, even in the South African winter season, there was plenty of opportunity for me to observe butterflies. However, in a change from my previous southern summer experiences, I found the local butterflies' behaviour in and around the Newcastle & Ladysmith in the QZN midlands area was somewhat different to my expectations.

Whereas in the southern summer I had to make all my observations in the early morning before the sun became too hot and the butterflies became far too active to identify, on this occasion the butterflies (mostly from the Blues and the Nymphalids families) would be active all day but would disappear for a couple of hours around mid-day to partake in the strange habit of koppieing. Whites, Browns, Acreas and Hottentots (Skippers) behaved more conventionally and would stay around the scrub and gardens until around 4 o'clock in the afternoon before retiring for the day.

So to try to get some decent photographs of dry-season forms, I too had to go koppieing - or "hilltopping" as the local English-speakers would say. A koppie is a barren hillside, often strewn with rocks and boulders, where aloes and cacti grow.

When hilltopping I observed that from around ten o'clock in the morning the butterflies (predominately males) fly up to the tops of the koppies to establish territories, bask on rocks, feed on the early spring flowers and vie for the most prominent positions on bushes to meet passing virgin females that arrive at about 11 o'clock. The males that have then established the best positions seem to be the ones most likely to then find a mate. Once mated the females descend to the bottom of the koppie to search for food plants and do not return. In England I note this posing behaviour by male butterflies is best seen in Speckled Woods, Green Hairstreaks and, if I am to be believed, Purple Emperors .

In a strange paradox, at nearby Mont aux Sources, in the Drakensbergs, one of the highest points in Southern Africa at 3100m above sea level, where the rivers that rise there are a watershed and so flow towards the Atlantic Ocean (The Orange) in one direction and the Indian Ocean (The Tugela) in the other. It being more temperate and wetter than the surrounding grasslands and high veldt (which parch during the dry season), the butterflies there behave more like

European species than South African ones. It is indeed a strange world, and I wonder as the English Purple Emperor flight season draws nearer, if it is merely co-incidence that some of their Nymphalid relatives in Africa “koppie” them (sic).

Please write to the magazine editor if you have any observations or opinions on butterfly behaviour that you would like to share with us on this topic.



*A South African Butterfly —  
The Yellow Pansy*



**NEW BRANCH WEBSITE ADDRESS:**

is [www.hertsmiddx-butterflies.org.uk](http://www.hertsmiddx-butterflies.org.uk)

### **Butterfly Sales, by Malcolm Hull**

A selection of our sales goods are now listed on the branch website at: [www.hertsmiddx-butterflies.org.uk/events](http://www.hertsmiddx-butterflies.org.uk/events) under the heading “gardening mail order”. Goods available include books, free leaflets, postcards, greetings cards, mounted prints and the popular FSC identification guides for butterflies and their caterpillars.

There is also a selection of packets of seeds for growing butterfly friendly plants, collected by our members and available by donation.

So far this year sales have been booming, with record takings in St Albans market on Saturday 20 May, when we sold 400 butterfly attracting plants in a day. Unfortunately our popular plants, grown by Alan Downie and Malcolm Newland cannot be sent by post. The best way to buy these is at one of our sales events. An up to date list of forthcoming events is kept on the website. Some forthcoming dates are listed below. If you want to want to know what currently available, or buy plants, but are not able to get to a sales event, just ring Malcolm Hull to make arrangements.

**Sunday 4 September** – Epping Forest Festival – 11am – 4pm at Wanstead Flats, Admission Free

**Saturday 24 September – The Commons Local Nature Reserve Conservation and Countryside Day**, the Commons LNR, Welwyn Garden City, Admission Free.

**Sunday 2 October** - Broxbourne Woods Open Day, West car park, Brickendon Lane (NB Car park will be closed to the public for the event, see organisers local signs for alternative parking arrangements). 11 am – 4 pm. Admission Free

### **LAST CHANCE TO BOOK**

**Saturday 2nd July ~ Ryewater Nursery, Dorset**

**If you would like to come on this visit and haven't already booked a place please contact Liz Goodyear by 30th June (details on the back of the cover)**

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## Aldbury Nowers Field Trip, 14 May, by Malcolm Hull

Despite the unpromising NE wind, six hardy souls joined me for an afternoon at Aldbury Nowers near Tring. The Herts & Middx Wildlife Trust Reserve is a chalk downland site, which has suffered from the lack of a stable grazing regime for several years. We were joined by Michael Pearson, the new reserve warden, who explained some of the steps the Trust are taking to restore the site. These include scrub clearance, grazing with sheep during the winter and writing a new management plan. Improvements to the site were immediately apparent, with much scrub removed and generally shorter grass sward.



Brown Argus - photo by Malcolm Hull



Latticed Heath— *Semiothisa clathrata*. Photo—Ian Kimber

The benefits for lepidoptera were also apparent and a total of 14 butterfly species were seen. Green Hairstreak, one of the main target species was seen in both main sections of the reserve & also in a small clearing on the Ridgeway path which links the two - 8 adults in total. Grizzled Skippers were in the northern, less accessible clearing - 7 in total. We were also pleased to see Dingy Skipper (6) & Brown Argus (5) present in both sections of the reserve. Other species noted included Small Heath (7), Small Copper (5), Brimstone (15), Green-veined White (2), Orange Tip (2), Holly Blue, Large White, Speckled Wood (3), Small Tortoiseshell & Peacock (3).

Colin Everett had brought his copy of Skinner, so we were well prepared to identify moths. These included Treble Bar (or possibly Lesser Treble Bar), Mother Shipton(3), Cinnabar (2), Pyrausta Aurata, Small Yellow Underwing, Latticed Heath (2), plus an

unidentified micro.

Despite sunny periods, the air temperature did not rise above 15 degrees and the NE wind remained. We were all pleased to see such a range of species and it shows how worthwhile it can be going to the right site in unpromising conditions. The butterflies seen were quite docile and easy to identify. Many appeared to be newly emerged, which produced some good photos, which are posted on the branch website.

### **Butterflies Follow Flightpaths..... Research Published by Staff at Rothamsted**

*The following was published on the BBC News website on April 6, 2005—<http://news.bbc.co.uk/go/pr/fr/-/1/hi/sci/tech/4414377.stm>*

Butterflies do not flutter aimlessly around the garden but instead follow precise flightpaths, scientists say.

A UK team of researchers made the discovery by tracking the insects with radar, using tiny transponders attached to the backs of butterflies. This gave them information on the insects' flightpaths, speeds and foraging behaviour - some of which could guide conservation measures.

Details of the research appear in Proceedings of the Royal Society B.

"We've never been able to see their flight tracks up to 1km before and it's showing us that they do seem to be quite directive in the way they're flying," said co-author Lizzie Cant of Rothamsted Research in Harpenden, UK. The scientists tagged Peacock (*Inachis io*) and Small Tortoiseshell (*Aglais urticae*) butterflies with transponders weighing just 12mg. After checking that the devices did not affect their behaviour, the researchers released



Small Tortoiseshell with radar transponder

33 insects into a large field being scanned by radar on the Rothamsted estate.

The flightpaths of individual butterflies were then tracked, some of them flying up to 1km from their release point. The researchers successfully recorded the movements of 30 of the insects they released.

The results revealed these butterflies had two distinct types of flight pattern: fast, straight movement and slower, non-linear movement.

During straight flight, the butterflies zipped along at about 2.9m/s. During the slower type of flight, the insects foraged for nectar from flowers and flew in loops, with a speed averaging 1.6m/s.

Flying in loops seems to perform an orientation function, helping the insects identify flowers or hibernation spots. The butterflies were able to identify and avoid unsuitable habitats such as dense trees from up to 200m away. They seem able to identify suitable foraging habitats from about 100m away.

"Finding out how butterflies choose where to go and how they use and feed in the landscape is going to prove very useful to conservationists," Dr Juliet Osborne, of Rothamsted, told the BBC News website.

"If we can get the funding, we'd like to do a much bigger study on butterflies over several years. This would give us information on how different species fly and how they're affected by different landscapes.

"If you're talking to farmers about whether they should have hedges and what kinds of crops they should have to increase biodiversity, the more we know about the different species, the better."

Lizzie Cant plans to repeat the experiment on rarer species such as the High-brown Fritillary (*Argynnis adippe*) and Marsh Fritillary (*Euphydryas aurinia*).

Radar tracking has previously been used to trace the movements of bumblebees and honeybees.

## **Book Review**

### **The State of Butterflies in Berkshire, Buckinghamshire and Oxfordshire by Jim Asher, Nick Bowles, David Redhead and Mike Wilkins**

This new guide provides a comprehensive account of butterflies in the Upper Thames branch area. Extinction of the Small Pearl-Bordered Fritillary and probably also the Pearl-Bordered Fritillary in this area are two of the more worrying points to emerge. Distribution maps and individual species accounts are given for all 48 resident or common migrant species. So this book is a “must have” for anyone looking for butterflies in the Chilterns or beyond.

The area covered stretches west from Herts and London down to Newbury and Bracknell in the south, to Milton Keynes and Banbury in the north. Habitat types include chalk and limestone hills (Chilterns, Cotswolds & Berkshire Downs), the Berkshire Heaths, forests in the Thames Vale and much farmland in between. This diversity largely explains why so many more species are present than in Herts & Middx.

Changes in the status of each species are illustrated by comparing distribution maps for the period covered by this book (1995-2000), with that of an earlier survey (1987-92). In this way each species is classified as stable, increasing, decreasing or extinct.

**Losers** No Small Pearl Bordered Fritillaries were seen at all & only one Pearl Bordered in 1995. Both are presumed extinct due to the loss of actively coppiced woodland. Wood White has declined rapidly for the same reason and due to deer browsing. This species is now confined to the Bernwood area and the North Bucks border. Small Blue, Dingy Skipper and Duke of Burgundy have all declined due to loss of appropriately managed calcareous grassland. Silver-studded Blue, found mainly around Bracknell has declined due to the loss of managed heath land. Wall Brown has suffered the biggest decline and the reason for this is not known.

**Winners** The good news is that there are more winners than losers. And some of the rarer species are doing well. Habitat specialists such as Adonis Blue, Silver spotted Skipper, Purple Emperor and Chalk hill Blue are all increasing in range. This is thought to be due to climate change improving their breeding success.



Silver-Spotted Skipper

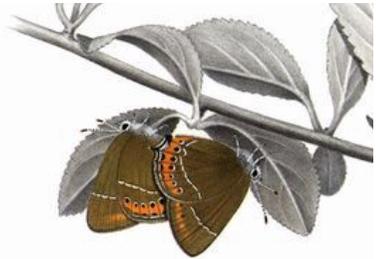
Silver-washed Fritillary, one of my favourites, has shown a slight improvement after nearly a century of decline. It is too soon to say if the increase in locations is permanent, though we know that in the period after that covered by this book it has continued to spread, becoming established in Wendover Woods and with several sightings into Herts last year. This highlights one of the least satisfactory aspects of the book that it has taken four years to publish. This may be because the principal author, Jim Asher has been

masterminding BC's Millennium Atlas, so can be forgiven.

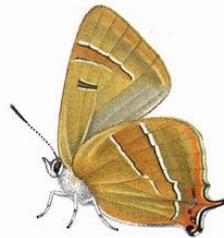
**Stable** Black Hairstreak is a nationally rare species with around half of all UK colonies found in the clay vale stretching north west from Oxford. Although the current position is stable, the habitat is vulnerable and colonies isolated, providing real cause for concern.

Brown Hairstreak is another speciality championed by the branch, where the overall status is stable. However the butterfly is now confined to the area of the Oxford/Bucks border around Bernwood/Otmoor. Colonies in South Bucks and probably also West Oxfordshire have been lost. A supplementary map showing the results of searches for the eggs of this species up to 2004 shows a tripling of known locations in the area of the remaining colony.

The distribution maps included in the book are a great help to any butterfly spotter. They highlight just what a hot spot the Chilterns are with many species confined to or concentrated in that area. Records for the part of Herts around Tring are also included. This is to



Black Hairstreaks



Brown Hairstreak

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provide full coverage for those 2km squares that straddle the county border, rather than a desire to annex part of the Herts & Middx branch area.

The book includes a useful section on habitats and the threats they face and finishes on an optimistic note. Real improvements are being seen due to changes in farming practices, greater environmental awareness and government intervention. Climate change will help some species while threatening others. The impressive efforts of the authors and the other Upper Thames Branch members must surely be another important factor.

Copies of the book are available by post at a cost of £9.95 from:

Pisces Publications  
36 Kingfisher Court  
Hambridge Road  
Newbury  
Berkshire  
RG14 5SJ  
Tel 01635 550380  
Email [post@naturebureau.co.uk](mailto:post@naturebureau.co.uk)

Postage & packing – For single books to UK addresses, please add 15% of the value of the book.

### **In Memoriam Donations:**

A donation to Butterfly Conservation is a wonderful lasting tribute to anyone who gained pleasure from Butterflies and Moths during their life time. Every donation in memory of a loved one will help save the butterflies and moths from which they derived so much enjoyment.

Here are just a few examples of what can be achieved from donations in memory:

A donation of £100 will provide one days' vital habitat management on one of our reserves.

A donation of £300 will buy a moth trap, so volunteers can carry out on going survey work.

A donation of £500 will enable us to run a training event for landowners and farmer on better land management for butterflies and moths.

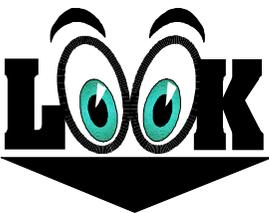
There are many ways to give in memory. For example, you could make a donation to Butterfly Conservation instead of buying flowers for a funeral. You can make a one-off donation at any time, or you can donate on a regular basis, for instance to commemorate a loved ones birthday or an anniversary.

If you would like to make a donation in memory of a loved one, then their name will be written in the In Memoriam book, which is held in the reception at the Lulworth Office. If you would like to write a few words about your loved one, we would be happy to include these in the book as well. We will send a certificate to each donor marking the gift. We will also, with the permission of the family, mention the donation in our annual review.

In Memoriam gifts can be arranged through funeral directors or direct to Butterfly Conservation. All donations, not matter how small, are gratefully received and acknowledged.

If you would like further information or would like to discuss your gift in person please contact Christine Simpson on 0870 7744309 or email [csimpson@butterfly-conservation.org](mailto:csimpson@butterfly-conservation.org)

Thank you for thinking of us at this time



## **National Moth Night Event at Bushy Park, Middlesex — 9th July**

Our South-East Regional Officer, Dan Hoare, together with Nigel Reeve of the Royal Parks, is running a National Moth Night Event at Bushy Park, Middlesex, on the evening of July 9th.

Many of you will already have plans for this evening, but if not please do come along - there should get plenty of interesting popular species from the mature parkland trees. They will be specifically targeting the UK BAP priority species Double Line, which has been recorded from

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very similar habitat in nearby Richmond Park.

Dan would particularly welcome anyone with a moth trap and/or generator who can come along to help us sample more widely. Details below, please pass them around, and if you have any questions do get in touch.



Dr Dan Hoare, South East Regional Officer, Butterfly Conservation,

Double Line *Mythimna turca*  
Photo © Ian Painter

c/o Surrey Wildlife Trust, School Lane, Pirbright, Woking, Surrey GU24 0JN Tel: 01483 486 555  
[dhoare@butterfly-conservation.org](mailto:dhoare@butterfly-conservation.org)  
[www.butterfly-conservation.org](http://www.butterfly-conservation.org)

## A Weekend Outing, by Ian Small

Over the Whitsun bank holiday weekend, my wife and I went to visit some old haunts in Wiltshire and Hampshire. Until moving to Letchworth in 1991, we had lived near Salisbury for 9 years, and I had been spoiled by access to some of the best butterfly sites in the country (mainly the MOD site at Porton Down). We travelled down on the Friday, which some of you will recall reached temperatures of >30C ! We arrived mid-afternoon at Stockbridge Down, near Winchester. Surprisingly, butterflies were not plentiful, perhaps it was too hot for some. That said, the first we saw was a Small Blue, followed closely by several Brown Argus and a Grizzled Skipper. We had lovely views of Small Copper, and Cinnibar moths, and a patch of Mullein covered in caterpillars of the Mullein moth. However, the main prize of the day was a beautiful male Marsh Fritillary which came and settled just in front of me.

Saturday dawned cold and very windy and did not look promising at all. After a morning shopping and a decent pub lunch, we went to Bentley Wood, which covers a huge area and has several entrances.

By now there were several sunny intervals, and butterflies were beginning to come out of hiding. Speckled Yellow moths were plentiful as we headed for a clearing where we had seen good butterflies many years earlier. Whenever the sun appeared - so did the fritillaries! The majority were Small Pearl-bordered, and these still looked very fresh, but there were also good numbers of the paler, and straighter-winged, Pearl-bordered fritillaries. At first, I didn't think we would be able to identify, let alone to photograph. However, we found that both species would come down to nectar on Bugle, and so all we had to do was find some, and then lie in wait! Then we could be surrounded by several busily nectaring at the same time.

Sunday was the day we went to 'The Track', an old disused railway line which runs along the edge of Boscombe Down airfield - and is now a BC reserve. We used to live within walking distance of here, and knew to expect another of my favourites - the Adonis Blue. In fact, it was the most common butterfly as we walked along, perhaps seeing a hundred or so. The females are brown, and are therefore much less conspicuous. The banks of this track are covered with horseshoe vetch, which was all in flower, and made a wonderful sight next to the blues and purples of the chalk milkwort.



Marsh Fritillary  
Photo ©Ian Small



Small Pearl-bordered Fritillary  
Photo ©Ian Small

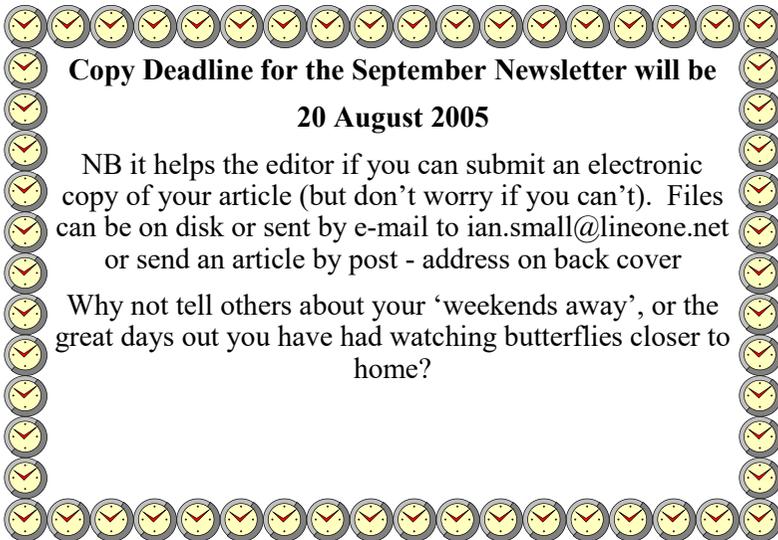


Male Adonis Blue  
Photo ©Ian Small

There were also other Lepidoptera to see - Small Blues, Brown Argus, Grizzled and Dingy Skippers, Green Hairstreak, plus the common day-flying moths, Mother Shipton, Burnet Companion and Cinnibar.

We finished our weekend by going to the other end of Bentley Wood on the Monday morning, and were rewarded with sightings of many more Fritillaries, including some Marsh Fritillaries, and a very brief look at a Humming-bird Hawk-moth, before it zoomed away. According to the visitors log-book, which I checked as we left, others managed to see a Painted Lady and a Clouded Yellow, and a Broad-bordered Bee Hawk-moth.

This part of the world has some fantastic sites which offer a huge range of opportunities for butterfly-watchers and naturalists in general. The journeys really only take a couple of hours, and I live right in the north of Herts. I recommend the area to anyone who fancies 'getting away' for a few days - who knows what you might see.





## Conservation Dates

Conservation work is one of the most important activities of the Society, as loss or neglect of suitable habitats is one of the major reasons for the decline in many of our butterflies as well as other wildlife.

Below are a series of dates across Herts. and Middlesex where you can help with essential management that aims to maintain the correct conditions on these sites for the wildlife that inhabits them. Several of the dates are run by the HMWT on their nature reserves.

**Millhopper's Pasture SP 900149.** John Noakes is compiling a list of people to call on when help is needed. If you would like to be included, please let him know, on (01296) 660072.

**Therfield Heath, TL 335400** First Sunday of each month from 10.00 a.m. - 1 p.m. Details from Vincent Thomson (01763) 341443.

**Duchies Piece (Aldbury Nowers) SP 952131.** No conservation activities planned at present. Please contact Michael Pearson (details on back cover) for further information.

**Hertford Heath TL 354111.** For details ring Anthony Oliver on (01992) 583404.

**Fryent Country Park** - details from Leslie Williams at the Brent Ecology Unit on (0181) 206 0492

**Patmore Heath TL 443257.** Meet at 10.00 a.m. on the last Sunday of each month. Further details from Gavin Vicary (01279) 771933

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