

Purple Emperor (*Apatura iris*) report for Hertfordshire and Middlesex 2012

Background

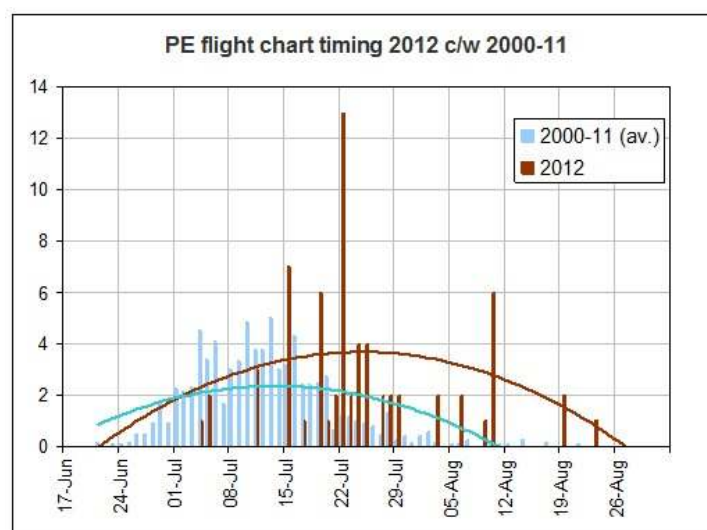
Unlike 2011 there was no funding available for survey work in 2012.

The spring of 2012, started very dry with dire warnings of impending drought and hose pipe bans were put in place. At times in March it was very mild, however this changed with a vengeance at the beginning of April with a period of very wet weather which continued off and on throughout the summer. 2012 ended up being one of the wettest years on record. This left woodland complexes saturated with rain, very wet, cold and extremely muddy. Horseflies and mosquitoes were in their element! Prospects for a good Purple Emperor season were bleak but in truth in our opinion it was no different to a 'normal season' except for one factor, it started late and ground on for what seemed like forever.

Flight period

Nationally, the first sighting of Purple Emperor occurred on the 29th June 2012 in Surrey. Surrey as the first sighting location has become normal in recent years although even this was late! Andrew Middleton (AM) and Liz Goodyear (LG) had been watching the Northaw Great Wood assembly area since the 26th June but it wasn't until the 4th July 2012, that a single male appeared in the territory area just after 2.30pm. Whereas the last confirmed sighting in 2011 was on the 15th July, the species did not peak until the week beginning the 22nd July (see chart below) when a week of good sunshine occurred. The first sightings in Middlesex were on the 5th July at Ruislip (Park Wood) when AM and LG had multiple sightings of at least two males. The intensity of activity that day, lead us to feel that the butterfly could have emerged a few days earlier and this site with a local London orientated micro-climate could mirror the Surrey sites for early flights.

The last confirmed sighting in Hertfordshire was at Northaw Great Wood with our latest ever record on the 23rd August 2012. Nationally a late sighting of the 2nd September was reported from Northamptonshire. It was a very frustrating season, especially for recorders who had booked holiday specifically to search for the butterfly at the beginning of July, and spending an entire two weeks without a single sighting!



WOODLAND COMPLEXES

Broxbourne Woods Complex including Wormley Wood (TL30)

Laurence Drummond (LD) visited the Broxbourne Woods complex including Wormley Wood and the Black Fan Wood area on several occasions but his survey work was thwarted by the late season and end of booked holiday. It was not until the 21st July he was rewarded with the sighting of two males patrolling the sallows at Wormley Wood. No sightings came from Broxbourne Common, Bourne Wood (where one of the key oak trees has died), the central area of the Broxbourne Woods complex, Black Fan Wood or Claypits Wood. In the previous winter, a major woodland felling plan was implemented in and around the main ride at Broxbourne Wood NR and much concern was raised when many sallows were felled. It is still not known what long term effect this will have on the Purple Emperor population (as well as the other woodlands specialists) but visitors and records were significantly reduced. Its popularity with casual observers will no doubt be felt although the local branch has asked for people to continue visiting and recording butterflies. It was felt inappropriate to organise a field trip there this year. The Woodland Trust arranged a conservation task with the branch and Wednesday Group of Volunteers at Wormley Wood to improve the footpath network in a sallow rich section of the wood which has a positive knock on effect by assisting the sallows which were retained.

TL20

Three visits were made to the Mimms Wood complex (North Mymms area), the first on the 4th July by LG and AM. This was the same day as the first sighting was made at Northaw Great Wood, but no Purple Emperors were seen. A second visit on 19th July confirmed territorial activity at North Mymms when LG and AM were witness to the most amazing performance by a single and very aggressive male. Quick visits to the other assembly areas in the Mimms Wood complex proved negative.

As posted on the Purple Empire blog: (<http://apaturairis.blogspot.co.uk/>)

Well what a day!!!! Forecast okay, nothing special but we had no intention of staying indoors! Arrived Fir and Pond Wood near Potters Bar, at 12:37, hadn't even got my chair set up with Andrew shouts one round the tree. Where I say? In the oak says Andrew (the wood is full of oaks but I knew he meant the bonsai!) then a clash of two males and we left very satisfied almost as quickly as we arrived. Sun was shining, perfect conditions. So we hot footed to Bricket Wood and were in situ at 13:15 and watched and waited while another bank of cloud came through. Purple Hairstreak were active and there was some sun but still no activity. Back into the wood to be greeted by more mosquitoes, a bit more sun and still nothing so at 14:30 we left. We then went to our first ever area in central Hertfordshire. Splitting up I went to one wood where Purple Hairstreak and a White Admiral were active, Andrew to watch the canopy of his first ever wood but it was fairly cloudy and no activity. Unfortunately, the other wood we look at had a tractor doing a hay cut where we normally watch, so we went inside the wood, to watch our famous 'turkey oak' the only true master tree which in recent years has been very inactive but today.....We sat down to watch at 16.05 and left at 18:20. There was a bit of sun but at times it really was quite cloudy and we reckon the air temperature was between 17/18°C, the tree was sheltered and at 16:18 his majesty flew up the side of the tree and until 18:18 continued to be active. There were in fact two as we had a clash but we were treated to the most amazing display of activity neither of us have ever witnessed before in all the years we have been watching in Hertfordshire. Remember this is Hertfordshire not Hampshire, Sussex or Northamptonshire a county with a very low density level. The key emperor was the most aggressive emperor we have ever witnessed, anything that came near was chased or fought. He spiralled and turned with a Red Admiral, not a simple chase, he fought it, he chased crows, pigeons, goldfinches.....and the arguments he had with the Purple Hairstreaks, he was clashing, turning, twisting, chasing them and in turn they were equally aggressive. He flew over the tree, round the tree, off the tree nonstop. He perched, he waited and pounced on another unsuspecting victim. Five o'clock came, would he continue, yes six o'clock and he still kept flying and finally at 18:18 it became too cloudy for him, he had flown round the back of the trees so we had lost him andthe mosquitoes had finally won! We left the site and went home very satisfied with an extraordinary day!!!

Earlier that day AM and LG visited Fir & Pond Wood, and observed two active males in the 'usual area' on the north edge of Pond Wood. A second visit by AM on the 10th August located males perched seen from within the wood. The last visits to Northaw Great Wood were on the 23rd August when AM saw a male fly across the territory and then 28th August when no Purple Emperors were seen although it was thought they could still be flying. A field trip was arranged at Northaw Great Wood by Butterfly Conservation on the 30th June but turned out to be far too early for even White Admirals.

TL10

The main woodland complex in TL10 is Bricket Wood Common and monitored by Malcolm Hull. Despite several visits he nor AM and LG were able to confirm Purple Emperor activity as the assembly area. However, Bricket Wood is becoming very popular with casual recorders in part due to its strong Silver-washed Fritillary population. As a result several sightings of purple emperor were made from other areas of the woodland complex.

TL31

There is only one known site in TL31, at Balls Wood (TL3410). The site is monitored by Andrew Wood and is visited by several other casual recorders - Andrew Wood has confirmed he has not received any reports of sightings this year.

Tring Park and surrounding woodlands in North West Hertfordshire

There were no reports from Tring Park although a report was received from the Ashridge Estate in 2012. Although there are many potential areas in this part of Hertfordshire no visits were made there this year by LG and AM.

North Hertfordshire

After the excitement in 2011 of locating Purple Emperor in the Hitch Wood area no visits were made nor to any of the other recently found sites and there were no sightings from Rusling End. A single Purple Emperor was reported from the Knebworth Woods complex centred on Watery Grove. Several visits were made to this complex by casual recorders but no other reports were received.

North East Hertfordshire

AM, LD and LG concentrated their searches in the north east of Hertfordshire at Plashes Wood again, watching the high point from an adjacent public footpath. The first sightings were made on the 15th July and subsequent sightings were made on the 22nd July, 26th July, 29th July and 3rd August when on all occasions two individuals were recorded. On the 15th July a female was seen flying down the edge of the wood in quite dull conditions.

Visits were also made to the Great Hormead and Albury area, selecting sheltered areas of the woods close to high points. On all occasions conditions were relatively poor or too early in the flight period and no sightings were made although their potential should not be discounted.

Middlesex sightings

Much of the survey work in Middlesex had been conducted by Steve Pash and his death had a potential for leaving a great void in sightings. However, Ruislip was visited by his friends and several reports were received from the St Vincent's assembly area and Nick Furtek sent a report from Copse Wood.

However the most exciting news from Middlesex was the finding of an assembly area in Whitewebbs Wood, north Enfield as this article written by Andrew Middleton for the Branch Newsletter Issue 64 Autumn 2012 explains:

The day the Emperor let slip! ~ Andrew Middleton

I have (with Liz Goodyear) been studying Purple Emperors in Hertfordshire & Middlesex for over 10 years, after locating our first inhabited landscape in the Potters Bar area in 2000.

But closer to my home in Enfield, there have been a few historic records, as follows:

- Enfield 1909 (The Entomologist Vol. 42; 282 [November 1909]),
- Reported seen Grovelands Park where it was seen around the oak canopy in the 1950s (personal comment),
- A dead female Purple Emperor at a home inside a house in Epping Town in September 1987 and in 1976 a dead male Purple Emperor found by the park-keeper in his shed at Whitewebbs Park (Martin Catt private correspondence)
- A male grounded along Three-quarter Mile Lane, Forty Hall, in 2000 (Starr Lobb).
- A male grounded by the river, Forty Hall, 20th July 2003 (Ron Macmurdie),
- A female in flight, Ferny Hill Farm / Duncan's Wood area, 20th July 2010 (Robert Callf).

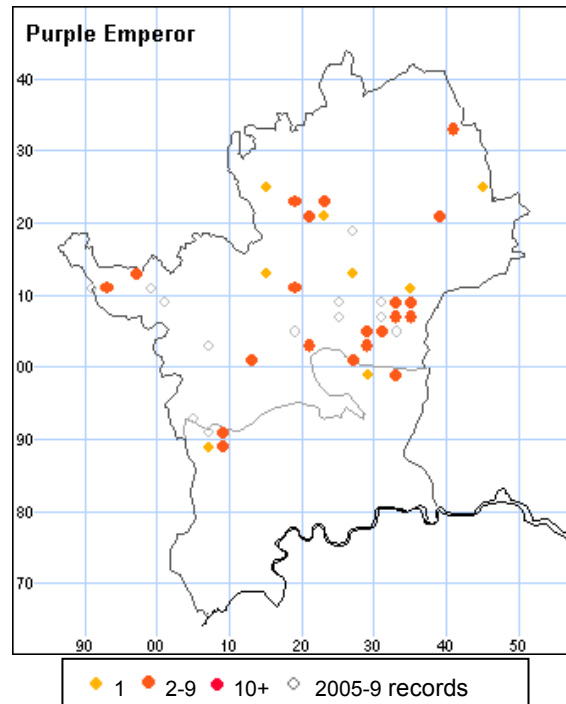
Others may dismiss this sequence of sightings, as presently happens across East Anglia where the insect is thought to be long extinct, however to us this is evidence of a low density population spanning north Enfield, and likely the remnant of a stronger population inhabiting the Chase from bygone times.

But it can be an incredibly difficult butterfly to locate when breeding at low density over a wide area, laying its eggs on sallows and maybe crack willows through the landscape. To find a mate, the male of this insect sets up territory amongst the largest trees at the highest wooded locations in the landscape, to which unmated females will naturally travel. So we had identified the high north edge of Whitewebbs Wood, with its mature oaks, as a likely site for an assembly area serving the Chase. But we couldn't find any males. Though we searched many times, crooking our necks upwards, it was a general waste of time. However this winter we identified a place where we might observe over the canopy from outside the wood, in case clashing or chasing males could be seen high in the sky. So one day near the end of July 2012, the Emperor let slip and did give himself away ~ when a woodpigeon flew over, and a large butterfly was seen to launch itself after the poor bird ~ usually only an Emperor would be so bold and aggressive to do such a thing. The flight had started well to the east of the high spot, so into the wood, and to start looking up in this guessed at vicinity. Firstly a likely quick flight overhead of a male, a move to the neighbouring clearing, another likely flight, a move to the next clearing and now views were given of an Emperor in all its glory and detail, gliding and patrolling and perching up on its leafy throne, a lofty oak leaf. This area took 3 hours to pinpoint, and the whole episode took a mere 12 years of trying, albeit on and off and over a 100 years since the first report.

What might surprise people is that, given two males were seen here on several days from July 27th to 10th August 2012, one can expect that next year's generation of males will likely select the exact same perches and patrol areas. Once such a territory is found, and the sallow habitat remains intact, and the large oaks persist, one can expect to see the Emperor here defending his throne for many Julys to come.

I hope this has given the reader some inkling of this creatures' odd and secretive lifestyle. Two fighting males on several occasions suggests it is doing quite well through the Chase, but it is almost never seen by any but a very few lucky people of the thousands of visitors enjoying these areas every summer. The butterfly population is likely linked through to populations encompassing Fir & Pond Wood, Northaw, Wormley and Broxbourne Woods, and Epping Forest, linking through westward into the central populations of England. Its conservation is quite simple ~ all people involved with land management should be aware of the scale of sallow and crack willow in their landscape and the need to conserve it, be it in wood or along woodland edge, beside river or lake, or amongst hedgerows, roadsides and spinneys.

So next July, Liz and I will hopefully return to these few oaks, which proved just a little too far from the high spot for us to easily find, and look forward to having the chance to enjoy the Purple Emperor spectacle again in the Royal Enfield Chase in 2013. We would be pleased to arrange a day or two as guides to show any interested people the insect, and will set a date or two nearer the time.



Distribution map end of season 2012
 ©: Butterfly Conservation
 Hertfordshire & Middlesex Butterflies
 2013 (covering 2012 records)

Further survey work

With such difficult weather conditions experienced in 2012, and so many new areas previously identified in 2011, all areas will require visits in 2013 and we would wish that some funding may be available to continue our survey work.

Thanks

We would like to thank everyone for continuing to look for Purple Emperors in 2012 despite the unusual season.

Liz Goodyear and Andrew Middleton

January 2013