

BUTTERFLY CONSERVATION UPPER THAMES BRANCH

Purple Emperor (*A. iris*) Report for 2007

Dennis Dell



Purple Emperor m.
Photo © Wendy Wilson

Acknowledgements

I'm very grateful to the following [not all of them UTB members] who submitted reports:

Wendy & Mick Campbell; Richard James; Ashley Stow/Louise Stratford; Martin Kincaid; David Redhead; Dave Wilton; Ina Wallace; Becky Woodell; Gerry Kendall; Stuart Hodges; Nicola Chester; Sue King; Tom Dunbar; Ched George; Nick Bowles; Dave Ferguson; John Ward-Smith; Graham Elcombe.

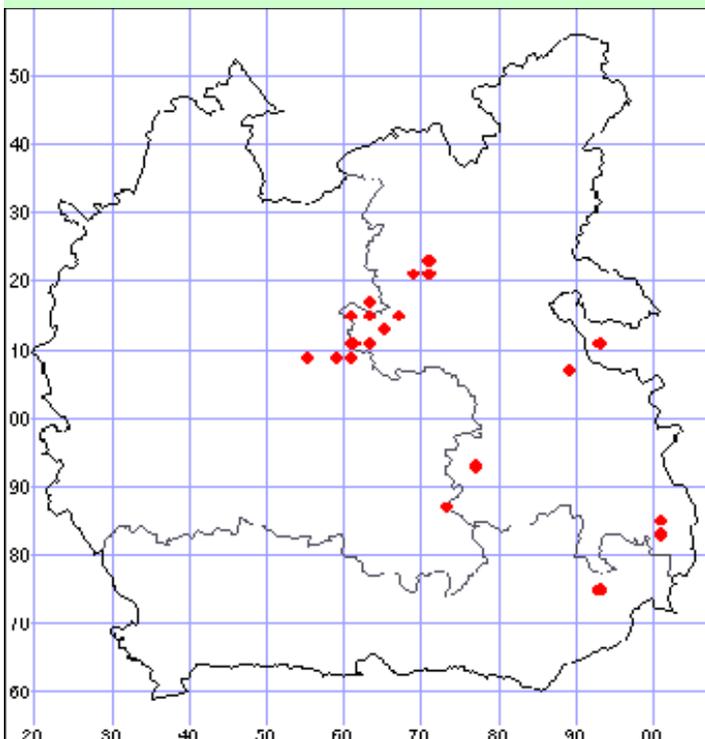
I apologise if I've left anyone out.

1. Introduction

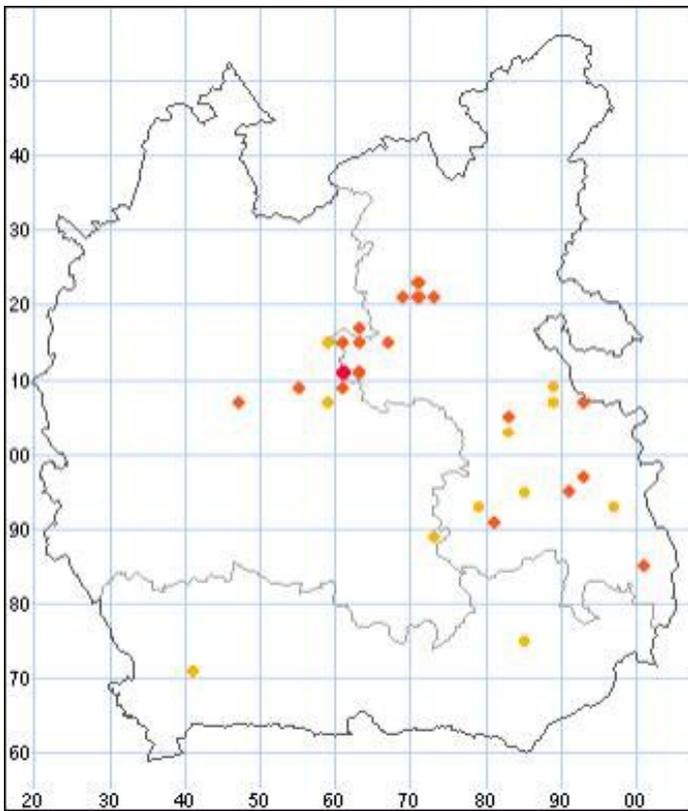
As in previous reports, the observations in detail may be found in the Appendix (see bottom of page). Also, as mentioned in previous years, it is almost impossible to be able to register the number of individuals seen. Therefore, I have used, mainly, the concept of 'sightings' together with periods of activity, or 'flight events'. In addition, I have not included, in the appendix, the additional visits people made to woods when they made no sightings. For example, the Campbells had zero sightings on 9 of their visits and Graham Elcombe responded to my request last year to visit woods so far unexplored by visiting eight spots in the Chilterns and, particularly, woods around Beaconsfield, without any luck.

2. Summary

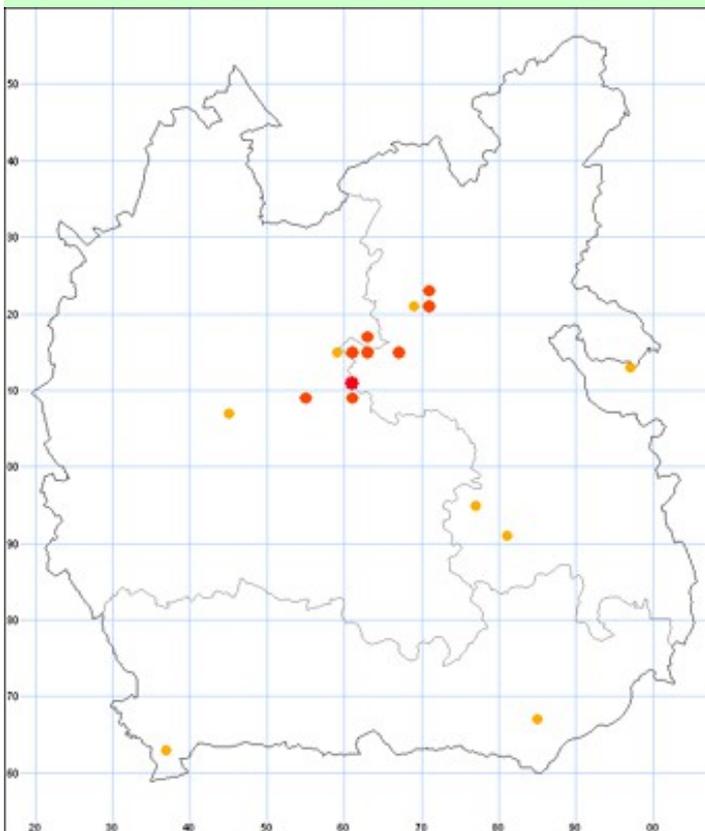
- Sightings were made at 17 localities. Last year, the figure was 30, although I do not know how many of these places were actually visited without sightings having been made. Three of the 17 localities were not woods: Easthampstead Conference Centre, near Bracknell, which is about ½ mile from the nearest wood; Farmoor reservoir, about ½ mile from Wytham Gt Wood; Garden at Upper Green, about ½ mile from Inkpen Common Wood. Three of the 17 localities were in the Chilterns [six, last year].
- About 55 sightings were made [last year it was 130].
- Territories/ male assembly points. Since the overall sightings were well down on previous years, few were seen at established territories, i.e. the 'Piddington Vista'; the northern edge of Finemere; the Oakley Wood car park; the ash canopy gap on the northern edge of Rushbeds; the high point at the eastern edge of Greatsea. Possible new territory: large Ash tree at highest edge of Little Wood.
- 'New' habitats ['new' habitats means, simply, that we do not have records from these places from recent years] were: Inkpen Common area; Ashridge Park; Bracknell Forest area [Easthampstead].
- First specimens seen on June 19th, the last on August 10th.



A. iris observations 2005 (data from Levana)



A. iris observations 2006 (*data from Levana*)



A. iris observations 2007 (*data from Levana*)

3. Results and Discussion

3.1 Weather

The BBC Weather internet site is the source of the following information.

April: an exceptionally warm month, with new April records for max. and mean temperatures [max temps over 5 degrees C above the 61-90 average]. Rainfall below average.

May: a wet month with some areas setting new rainfall records for the month. Mean temperatures above average, despite sunshine amounts below normal.

June: A warm and dry start, becoming increasingly unsettled. Mean temperatures generally 1 deg C above average. Well above average rainfall; some areas had their wettest June on record. Sunshine amounts below average.

July: Mean temperatures close to or slightly below average. Max temps below average. Rainfall well above average [about double the normal].

Summary: Mean temperatures about normal. Rainfall well above average.

3.2 Sightings

Well below that of the last few years and this reflects the general experience in other regions where *iris* is regularly observed. The first observation on **19th June** is about one week earlier than normal, possibly due to the very warm April weather, which may have accelerated larval development. However, this early emergence was not continued, and there was a definite lull in sightings until about mid-July. Maybe the higher than average rainfall influenced this. Only on 9 occasions were more than 1 specimen observed. The 14th July in Bernwood Forest bucked the trend, when about 13 individuals were seen. It has to be said that about 20 people were observing, split into two groups who were in different places during the day; obviously, having so many pairs of eyes looking, increases the chances of sightings. Nevertheless, in previous years during the same field meeting with the same numbers of observers present, not so many *iris* individuals were seen.

On July 10th, four of us watched 3 specimens cavorting around a huge Ash at the top edge of Little Wood for about 30 minutes. Interestingly, 8 days later, the Campbells also saw 3 at the same Ash tree. They also confirmed Sydlings Copse [BBOWT] as a good habitat, having seen 4 there on July 14th, as well as Moor End Common, Frieth, where they saw 3 on July 22nd. The latter is a very interesting wood; although it is in the middle of the Chilterns, it is predominantly acidic and has an excellent deciduous mix with many fine old Oaks.

The last sightings were on **August 10th**, at two locations far apart from each other. This suggests a somewhat longer season than usual [about 51 days] and emergences extended over a longer period, perhaps because of the heavy rainfalls.

3. Distribution

See maps above. We are still suffering from too few observers in Berks and Oxfordshire. Not surprisingly, in this relatively poor year, the number of 2km squares is down on previous years. However, the two Berks squares are new [see later].

3.4 Territories [male assembly areas]

1. Oakley Wood Car Park. Very few observations, even in Bernwood on July 14th when 13 were seen altogether, but only 2-3 in this car park.
2. Piddington Wood. Also very few observations at 'the vista'.
3. Little Wood. Several have been seen along the top edge in the last few years. This year a very large Ash was favoured, with observations being made by different people 8 days apart.
4. Finemere Wood. Very poor this year. Only one seen along the Ashes at the northern edge.
5. Greatsea Wood. At the same high point as in previous years, 2, 1, and 1 seen on July 9th, 12th, and 24th, respectively.

3.5 'New' habitats [sightings away from woods not included]

Only one this year: Ashridge Park in the Chilterns. This very large forest straddles the Bucks/Herts boundary, but the observation was definitely made in Bucks. We've always felt that sightings ought to be made here, since there have been several from the Tring area in recent years. This is the most northerly Chilterns observation so far.

3.6 Observations away from woodland

Easthampstead Conference Centre, nr Bracknell. This specimen was seen inside the building, flapping against a window. Looking at a map of the area, the nearest wood [Big Wood] is at the end of a long avenue of trees, about ½ mile distant from the house. This is the first sighting we've had from the Bracknell area.

Upper Green, Berks. This was in a garden about ½ mile from Inkpen Common, from where there are old records.

Farmoor Reservoir, Oxfordshire. This is close [1/2 mile] to Wytham Great Wood, where sightings were made last year.

4. Conclusions and the future

In the same section in last years' report, a number of questions were posed. Because of the rather poor 2007 season, none of these could be answered. I repeat here suggestions for studying this species and discovering more about its ecology:

- concentrating on a wood of your choice where *iris* is always seen
- visiting the wood every three days [if possible] during the flight season [from about June 25th until the end of July], and only in reasonable weather
- observing for at least 30 minutes in particular areas of the wood at 'likely' micro-habitats; these are well known to you:

a) groups of trees at high points

b) groups of the tallest trees where the wood is largely 'flat'

c) glades, or areas where the trees are spaced about 20 metres apart [perhaps as the result of recent felling]

d) anywhere along wide sunlit rides

e) woodland edges, especially where there are gaps in the canopy

f) car parks within or at the edges of the wood

g) groups of Sallows [to observe female behaviour]

If you identify a 'good' territory, then pay several visits to this area at different times of the day to monitor any changes in activity/behaviour/numbers seen.

Very useful sources of information are:

1) 'The Ecology and Conservation of the Purple Emperor', published in 1987 by Ken Willmott, which was a project supported by the WWF. Ken has continued to study *iris* ecology in his wood [Bookham Common, Surrey] since then, and has accumulated a wealth of ecological information.

2) Matthew Oates has coordinated a national *iris* project during the last few years, and has published reports on the findings. He himself has accumulated an enormous amount of knowledge from his observations over many years, mainly, but not only, in Alice Holt Forest.

3) Elizabeth Goodyear and Andrew Middleton have coordinated *iris* observations for the Herts/Middx section of BC during the last few years, and have also published excellent annual reports.

We may not be blessed soon with another year like 2006, but let's hope for something better than this year in 2008.

Dennis Dell

October 2007

APPENDIX: Details of Purple Emperor Sightings in the UTB area during 2007

DATE	OBSERVER	LOCATION ^a grid reference	MICRO-LOCATION ^b grid reference	NUMBER SEEN AND SEX ^c	TIME ^d	WEATHER CONDITIONS	BEHAVIOUR ^e and comments
19.6	Mick Campbell	Little Wood	Bottom of wood	1 possible.		M-I	Probable sighting of PE flying over sallow. Unexpected, so couldn't be certain, but wing-shape & flight pattern were that of PE. Definitely not WA.
20.6	Richard James	Easthampstead Park Conference Centre	Inside a south-facing window within building SU844673	1	10.15 watched for 20 mins then released to outside		Outside house there is a long [1/2 mile] drive lined by Oaks and Beeches leading to a deciduous wood [Big Wood]
21.67	Wendy & Mick Campbell	Bernwood	Oakley Car Park	1 possible.	11.30-1.00pm	Moderate, some sunny spells, very windy.	Possible sighting of PE near car park (on main track). Large butterfly, behaviour like PE, came out of sallow, looped round and went into trees nearby.
23.6	Wendy & Mick Campbell	Piddington Wood	Territory SP 629161	1	5 minutes, mid afternoon.	Moderate, some sunny spells, then rain.	Flew up from 2 nd Ash tree left of the Oak to chase a pigeon then perched back on the Ash tree. It was still there after we had walked to Little Wood and back and during the 10-minutes of moderately heavy rain.
23.6	Wendy & Mick Campbell	Little Wood	SP624157; at the top of wood near the first ride meets the public footpath.	2	15 minutes, mid afternoon.	Poor, overcast then rain, but warm..	Both seen flying & perching in top of large Ash tree near footpath. One flew off when it started to rain quite heavily but the other stayed put and was still there when we left after about 15 minutes.

28.6	Wendy & Mick Campbell	Waterperry Wood	SP605090 Sallow tree just off main track at the sharp bend.	1		Very windy, cool. Warmer during sunny spells..	Brief flight – ‘circuit’ around top of sallow tree, then settled out of sight. No further activity seen in about 20 minutes of watching the sallow. Also walked entire length of main track & other main tracks in the wood, looking in sallows, watching sky-line & on the track, but no other PE seen (lots of WA though!).
5.7	Ashley Stow/Louise Stratford	Farmoor Reservoir.SP446063	Concrete Causeway	1 f	17:25- 17:35	Very hot – cool breeze coming across reservoir	Flying low around wooden huts on the causeway. Settled briefly on concrete kerb, then flew eat along causeway towards sailing club/water treatment works. Settled briefly again on causeway and then flew to end. Settled for about 5 mins in shade on gravel on Farmoor reserve side. Lost sight as it flew towards water treatment works.
5.7	Martin Kincaid	Finemere Wood	Oak Tree along main ride SP719217	1	13.45	moderate	Settled on Oak
7.7	Wendy & Mick Campbell	Moor Common	SU803905 Oak tree where footpath to wood meets power lines; then in Oak tree on main common.	1	5 mins of activity (pm) in 2 hours of searching. Sighting was at 4.20pm.	Sunny spells, but still mostly cool & breezy.	Glided down from Oak tree, circled, then headed uphill along the ride cut through the trees for the power lines. We followed its flight path which took us to the highest point of the Common. After watching the tallest oak for about 10 mins, a Red Kite flew over & a PE chased it!! We saw it circle the tree at intervals before we left, so presume this tree is a ‘territory’ as we also saw a PE in this tree last year.
9.7	Dennis Dell	Greatsea Wood	SP714228. High point near edge above main trak	2	14.42 to 15.15	Ideal, 22 degrees	Territory; crossing ride between Wych Elm and Oaks before disappearing southwards
10.7	Dennis Dell, David Redhead, Dave Wilton	Little and Piddington Woods	SP625158	4	1 hour	Poor, cloudy	1 in Piddington Vista; 3 on and around large Ash at top edge of wood, clashing and perching; watched them for about 30 minutes

11.7	Wendy & Mick Campbell	Rushbeds Wood	SP667155 Ash trees approx 250-300 yards along footpath from the car park.	1	Brief flights, late p.m.	Cool, cloudy, windy, odd sunny intervals.	One (rather small) Purple Emperor seen. We had clear views of it perching in the top of an Ash tree (the same tree we saw one in a previous year) and it then circled the tree top a couple of times before flying across the path where we lost sight of it.
12.7	Ina Wallace	Greatsea Wood	SP714228. High point near edge above main trak	1 male	10.30		Seen flying low by gate at entrance
13.7	Dennis Dell	Finemere Wood	SP714222. Highest edge	1	15.55 to 16.05	Cloudy, 21 degrees	On territory on ash just behind big Oak at top corner
14.7	Wendy & Mick Campbell	Sydlings Copse	SP55-09 All observations were made from the meadow.	4	A number of flights seen over Ash & Oak trees during 2 hour visit. First sighting was at 11.35am.	Cloudy, clearing later, but strong breeze.	In about 2 hours we had sightings of 4 Purple Emperors in what we believe are 3 distinct territories (same places as in previous years). All seen from the meadow, first territory is about a third of the way down on the right (in Ash & Oak trees), second is three quarters of the way down, rhs, in Ash tree, third is right down the far end across the top of Ash trees. We had extended views of the first male (saw purple sheen) as it perched low down in a small maple tree. All other sightings were flights over the tops of the trees, no clashes or chasing observed.
14.7	Dennis Dell and 6 field meeting participants	Oakley and Shabbington Woods	SP6111. Oakley wood car park and along main piccadily track	6	10.30 to 15.00	Moderate; some sunshine	Only three in car park; one stationary on Oak for 30 mins. One female flying low at Piccadily x-roads. Two skimming low and landing on Piccadily ride at 3 pm.
14.7.	Becky Woodell and David Redhead	York's Wood/Hell Coppice SP6110	Along ride from Piccadily x-roads to Hell Coppice	7	York's, between 13.45 and 14.45; Hell Coppice from 12.25 to 12.50	Good, mainly sunny	1 just south of Piccadily along ride; 2 in Chestnut tree and 1 on Oak in glade at SP614107; 1 in big Sallow near glade. 2 definites in 'old territory' at Hell Coppice car park flying in and around Oaks, briefly

15.7	Dennis Dell	Oakley Wood	Car park SP611117	2	11.40 to 12.10	Poor, 19 degrees, cloudy	One above trees, and one male landing for long periods in the car park; feeding on stones
16.7	Becky Woodell	Whitecross Green Wood	Car park	1 male			
16.7	Gerry Kendall	Oakley Wood	Along main ride between car park and Piccadilly at SP613111	1 male			On dog droppings
18.7	Wendy & Mick Campbell	Little Wood	SP624157; Ash trees at the top of wood where the first ride meets the public footpath	3	20 minutes (5pm-5.20pm)	Warm & sunny.	Chasing, perching, spiralling. Assumed to be all males judging by behaviour.
19.7	Dave Wilton, Stuart Hodges	Whitecross Green Wood SP6014	Along main ride	3 [one was a female]			
21.7	Nicola Chester	Upper Green, Inkpen	SU373637 In garden	1 male	11.15 for 3 minutes	Overcast, mild	Rested on yellow flowers for 2 mins, flew briefly into house and then away
22.7	Wendy & Mick Campbell	Moor End Common	SU803-905 Oak tree 'territory' on main common.	3	1 hour in morning.	Cloudy, sunny intervals, 19C.	Brief chases observed, some more extended. One sighting was of a larger, browner PE flying lower down in the Oak tree (possible female).
22.7	David Redhead	York's Wood	SP614107. Glade; on Sweet Chestnut	1			See 14.7
24.7	Dennis Dell	Greatsea Wood	High point above main track SP714228	1			Landing on Wych Elm and flying across ride before disappearing
24.7	Mick & Wendy Campbell	Penley Wood SU767940	Sallow and Ash trees	1			Flew above trees; in view for about 10 seconds
10.8	Stuart Hodges	Doddershall Wood	SP699204	1			Settled on Ash next to tallest tree
10.8	Sue King	Ashridge Park	SP971135	1			1 st record from here