



**Butterfly Conservation
Friends of Bentley Station
Meadow Butterfly Reserve**

Spring and Summer Events

Hampshire & IOW Branch invites you to the following events. All are welcome.

**Meet in the Car Park at Bentley Station.
(SU792 432)**

Monday 2nd May, Meet at 10.30am for a stroll through the reserve owned by Butterfly Conservation and in adjoining woodland. Guided walk looking at spring butterflies, flowers and tree-lore. Children most welcome.
(Approximately 1½ hours) Leader Lynn Fomison.

Friday 3rd June Meet at 10.30am. "Sharing Nature with Children" - a leisurely short walk with butterfly games for parents and children and to see the late spring flowers. 1 ½ hour's duration. Carry a small picnic with you to eat towards the end if you wish. Leader Lynn Fomison.

Sunday 10th July. Meet at 10.30am. Butterflies for all - Annual Walk with Lynn Fomison Reserves Officer and others who help to run the reserve. Approximately 2 hours.

Sunday 17th July Meet at 2pm. "A Butterfly Bonanza" with the junior members of RSPB NE Hampshire. Other children and parents most welcome. Approximately 2 hours.

Wednesday 10th August Meet at 10.30am. "Sharing Nature with Children" - a leisurely short walk with butterfly games for parents and children & to see the summer flowers. 1½ hours duration. Carry a small picnic with you to eat towards the end if you wish. Leader Lynn Fomison.

No need to book. In case of enquiries contact Lynn Fomison (01962 772251).

Special walks can be arranged for groups as part of our educational programme – cubs, brownies, schools, photographic societies and Women's Institutes etc. Tell the groups you belong to please, as these visits earn us cash under the Defra educational access scheme. Contact Lynn to fix a date.



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A Date for your Diary

Sunday 30th October "Make a Difference Day" Work Party – more details later.

National Moth Night 9th July

You are invited to a moth evening at Janet & Ken Jones, Ferny Hoolet, Winchfield. SU781 542 Please phone on 01252 842174 if you would like to come and watch or bring your moth lamp.

Butterfly Transect

Derek Mills has recently decided to relinquish his involvement with the transect at BSM. Derek has done a great job for several years and Lynn is pleased to record her thanks to him for both being the co-ordinator and a transect walker. We welcome Clive Carter as Transect walker and we need a new co-ordinator. **Can you help?**

It is helpful if transect walkers wear the Butterfly and Moth monitoring badges that were provided as it enables members of the public to identify those people who are undertaking official duties at the site. Not got a badge? Contact Lynn. It is also helpful if people note moth & other wildlife sightings on back of transect form as reports can go in BSM News. Or send Lynn an email.

New Volunteers

It was pleasing that some new volunteers joined our conservation work parties this winter.

Contact with Birdworld

As a result of Butterfly Conservation's stand at Blackmoor Apple Day Bird world have made contact with us and offered to display posters etc about the meadow.

Winter Work Parties

Winter work went well. We had help at one work party with a group of offenders who were serving Community Service orders with Probation Service. More turkey oaks were felled by John King in the ongoing programme of thinning the oak copse by the railway line. Ben Spraggon, Patrick Fleet and numerous volunteers did sterling work on the brambles and scrub that threatens to invade the grassland constantly.

In the Meadow

Visitors are invited to send their observations to Lynn for inclusion in the September newsletter and in the Annual Report.

Purple Emperor 'Master Tree' Project

I hope friends of BSM will be interested in this extract of the detailed report from Butterfly Conservation's Purple Emperor project group, and be inspired to do more PE watching locally.

Given that BSM is an important location for Purple Emperor, I thought readers might be interested to know that the full report is on the BC national website under "Species". Although Matthew Oats is not able to publicise one of the main Master Trees in the Alice Holt area – it is in someone's garden! – the key points to make about our local PE's, he says, are

- 1) that most/many PE males emerging from/searching for females in BSM seem to go all the way to Bucks Horn Oak.
- 2) there should be a MT around Lodge Pond - much nearer – it has not been found.

Progress Report 2004

Matthew Oates, Liz Goodyear, Andrew Middleton and Ken Willmott

The 2004 Purple Emperor Season

This was the Purple Emperor season from hell. We should have enjoyed a massive emergence, given that the 2003 egg-lay was good and that weather conditions during May and June 2004 were highly beneficial for larval development, pupation and the pupal stage. A large and early emergence was on the cards. Sure enough, the first males were seen as early as 21st June (Surrey), 24th June (Hampshire), 28th June (Northants) and 29th June (Herts & Oxon).

Initial numbers were highly promising: Matthew saw a minimum of 13 males (and a max of 16) in Alice Holt Forest, Hampshire, on June 27th. That, though, was just about the highest count from anywhere during the whole season, due to persistent foul and abusive weather which more than decimated the adults (in the modern meaning of the term), especially the males.

The weather collapsed just before the flight season. On 23rd June, the third deepest June depression in the last 100 years came over. Another deluge arrived on the 26th. Early July was dominated by low pressure which brought heavy localised downpours, which were often thundery, and low temperatures. It was particularly wet in the south east. July 6th was a pleasant summer's day but the following two days

saw a severe north-easterly gale that caused a lot of damage in the woods, bringing down branches and myriad sprays. Oak spays littered the woodland floor thereafter, and exposed willows were damaged. This gale did immense harm to arboreal butterflies, writing-off White-letter Hairstreak and knocking out Purple Hairstreak in many districts. White Admiral males were also severely depleted. It is clear from independent reports that Purple Emperor suffered enormously, particularly the males. The only good news is that the bulk of the female emergence occurred after 8th July.

Cold nights occurred after this two-day gale. Then the gloom set in. The peak Purple Emperor season period was dominated by day after day of Stygian gloom, punctuated by a few random holes of blue sky. It was so cold and dull that even Meadow Brown and Ringlet were grounded for lengthy periods. These conditions lasted from 9th July to 23rd July, when the first anticyclone of the month began to edge across. Between 6th July and the 23rd there was just the odd reasonable part-day (e.g. 19th and 20th). By the time the weather improved on the 23rd the males were effectively over and most females were worn. There was, though, some reasonable weather for egg-laying females late in the season. The last record we have is of a tattered female terrifying shoppers at the Sainsbury's superstore at Tadley, north Hampshire, on 5th August. In effect, we want our money back!

Outputs

With regard to spreading the word, the project has been very active. A hugely successful training day was staged at Alice Holt Forest on April 24th, kindly hosted by the Forestry Commission and arranged by Butterfly Conservation. Over 40 people attended and Matthew, Liz, Andy and Ken gave talks. The weather was perfect, better than on any day of the 2004 Purple Emperor season. In late November, Liz, Andy and Matthew gave a 30 minute presentation on surveying and monitoring Purple Emperor populations to the national BC Members Day, in which the Hertfordshire work and national picture were presented. This seemed to go down well. Matthew has also given talks on the 'Master Tree' Project to three Butterfly Conservation branches (Beds & Northants, Hampshire and Sussex).

We have written an article for the BC magazine, Butterfly, Issue number 28, which we hope will inspire and assist people looking for this butterfly. Matthew has also written an article on the project for the annual BC Hants butterfly & moth report, written a biographical account of IRP Heslop, who masterminded Notes and Views of the Purple Emperor (Feb 2005 edition of British Wildlife), and produced a report for the FC on the Purple

Emperor in Alice Holt Forest. In Herts, Liz and Andy are producing another annual report, depicting good progress on determining the butterfly's status and distribution in the county. They have met with the FC to discuss management concerns in a wood in private ownership, with positive results.

One of the 'Master Tree' Project's main objectives is to make this butterfly more accessible to people from as many walks of life as possible.

What to Look For

The following is an expanded version of the relevant part of our article in Butterfly.

Favoured assembly areas are occupied each afternoon throughout the flight season, though the number of males present and the degree of activity are reduced in extremes of temperature (very cool conditions or hot, >25°C), cloud (dull conditions) and wind (depending on degree of shelter). The presence of clashing, battling or chasing pairs of males is almost diagnostic. Look for high speed, high level chases. However, on windy days this activity is often localised, being concentrated around sheltered bowls close to the tree foliage.

These assembly areas are rarely single large trees but are normally groups of two to 10 trees.

Occasionally, in woods of fairly even canopy height on level ground, males establish individual territories on large stands of up to a hectare or so in size, and make sorties to invade each other's territories. Many types of broad-leaved trees are used for perching, but as yet there are no instances of conifers being utilised. Most assembly areas are on high ground, but on level topography prominent tall trees may be used, at least in sheltered conditions. The butterfly can migrate, or even commute daily, out of level canopy woodland on flat ground to wooded higher ground. Shelter from prevailing winds is essential, and is provided by high ground or tall trees to the south and west. Conifer blocks are particularly good at providing this shelter. Many assembly areas are along north and east-facing wood edges. These are usually best found by working outside of the wood. Glades or open rides are not necessarily adjacent, which suggests that some / many assembly areas are hidden from our view. Many assembly areas are in rather unprepossessing spots, where few other butterflies occur. In effect, to find the Emperor you must forsake all other butterflies, though it is surprising what else turns up in Purple Emperor territories.

The proximity of sallows is irrelevant, for many assembly areas are some distance from breeding grounds. In effect, this appears to be quite a mobile insect, prone to daily local migrations, for

males have been tracked going up to assembly areas in the morning and dropping back down in the evening.

Likely places can be determined through studying contours on the 1:25000 maps, FE stock maps and aerial photos on the internet, and prospecting the woods before the season commences.

Sallows are most prominent in March and early April, when they are in flower. At that time of year good Purple Emperor woods on sloping ground can be spotted from some distance away. In season, the ability to use good quality binoculars to focus instantly on a small, fast-moving distant object is a great advantage, as is the ability to tolerate severe neck ache. This is a butterfly for birders!

Incredibly, we have little idea as to why they visit these places, for females seem to avoid these spots, and in late morning males search frenetically for females skulking amongst willow stands, where courtship and mating can take place. It may be that first matings tend to occur in and around the willow stands but second matings, if these occur at all, take place around assembly areas. We will need to revise the language describing assembly area characteristics further.

The Purple Emperor 'Master Tree' Project's objectives are to -

Conduct, stimulate and facilitate searches for male assembly areas.

Determine the characteristics of assembly areas and so develop techniques for surveying this species.

Liase with appropriate land owners and managers.

Seek to develop methodology for monitoring adult numbers in assembly points.

Increase conservation knowledge.

Circulate annual reports and publish a final report (perhaps after 3-4 years).

Make this butterfly more accessible to people at all levels.

A Comma or Two! – Maurice Moss

The appearance of a flash of bright orange-brown, early in the year in the garden, is a welcome sign of spring and is usually an especially active butterfly called the Comma, known to biologists as *Polygonia c-album*. The first appeared in our own garden at the end of March having hibernated on a tree trunk, or under a branch, right through the winter. With the jagged edge of the wing, and their beautifully camouflaged colouring when they close their wings, the Comma butterfly looks just like a dead leaf. They make no attempt to hide

during the winter but you will be very lucky if you spot one. It seems amazing that they can sit it out through our winter, although they usually choose a sheltered spot to settle. To add to the camouflage there is a white 'Comma' shaped mark on the underside of the hind wing which looks a bit like a hole in a dead leaf.

The top surface of the wing is a rich orange-brown with a pattern of darker markings and the butterfly is very visible once it has emerged from hibernation and starts to fly. Once they have mated the female sets about laying eggs, usually singly, on the appropriate food plant for the caterpillar. Believe it or not, many butterflies, including the Comma, can 'taste' with their feet and the female carefully checks that she is on the right plant before laying an egg. The most popular plant is the nettle, but they will use hop, redcurrant, elm and willow. In fact, there has been an interesting change in the natural history of this species over the last two centuries. In nineteenth century books the main food plant was always given as the hop and, indeed, it was considered to be a serious pest in hop-growing areas. The almost complete disappearance of the species in Kent, during the nineteenth and early twentieth centuries, was considered to be due to the increased burning of hop-vines after the harvest with the destruction of many caterpillars and pupae.

Emma Sarah Hutchinson (1820-1906) lived in Herefordshire for most of her life. She was married to the Vicar of Grantsfield, near Kimbolton, and became intensely interested in butterflies and moths after her 5-year old son caught a Swallow-tail moth (not to be confused with the butterfly of the same name). She was especially devoted to the Comma butterfly and it is said that she bribed the hop-growers to collect larvae and pupae for her so that she could breed them in safety and release the adult butterflies back into the wild. She is remembered today in the scientific name of the summer form of the Comma butterfly, *Polygonia c-album* form *hutchinsoni*. There was a time during the twentieth century when the Comma was a rare British species, confined to the southern counties, but it has been increasing in numbers, now feeding mainly on nettle, and spreading north. Today it occurs throughout England and Wales but is virtually unknown in Scotland and Ireland. The few specimens recently seen in Scotland were the first for 130 years and it may be that the species will re-establish itself there.

The Comma has a complex pattern of generations. The eggs of females that have overwintered may develop into two types of caterpillar. A proportion feed rapidly and develop quickly into an early summer brood of adults

(these are the form *hutchinsoni*). These mate in the summer and produce a second generation of adults in August and September. The slower growing caterpillars give rise to adults in late July which do not mate until the following year.

This unusual behaviour means that we may see these attractive butterflies on the wing from March right through until September.

Lynn adds "Maurice visited Yew Hill last summer with The Querkett Microscopical Club, was impressed with our reserve and sent me this article" and goes on " Very few Commas were seen on transect last year at Yew Hill – 3 in comparison with 24 at Bentley, showing maybe that this is a butterfly that really does prefer a setting with plenty of trees and bushes.

The 'Butterflies of Hampshire' indicates that there were no Hampshire records of this species from 1886 to 1919 but by 1926 it was common again at various locations. The aforementioned book is a brilliant source of information about our local butterflies & no dedicated enthusiast should be without it!"

[Newsletter](#)

Lynn has written much of this newsletter - apologies for any errors/omissions. Thanks to Matthew Oates for the use of the Purple Emperor Project material.

Items welcomed from you. Please send any items for the Autumn Newsletter to Lynn by 1st September 2005.

[Bentley Station Meadow Who's Who](#)

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