

HERTFORDSHIRE AND MIDDLESEX BRANCH NEWSLETTER

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**Butterfly
Conservation**

Maytime in the Chilterns,

by David Chandler

Spring came late to my part of the northern Chilterns in 2004, or maybe it was just a "normal" year after several early seasons triggered, as some say, by the effects of global warming. However, I personally measure Spring's arrival by the Orange Tip's appearance and the flowering of the *May* tree (or Hawthorn).

The Orange Tip duly appeared on the wonderful sunny weekend of April 24th & 25th, and three weeks later on, around May 15th &

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16th, the *May* tree was in full flower.

The *May* of course gets its other name of the Hawthorn because in May-time it is covered in white blossom that, from a distance, appears to give it a winter (haw) frosty appearance. The *May* is also one of my favourite trees because a south facing *May* is often found to be the roosting place chosen by the males of one of my favourite butterflies, the Green Hairstreak, and all the BC members who came with me on the field trip to Aldbury Nowers on May 15th will know what I mean as I poked and prodded suitable *May* trees to try to find Green Hairstreaks for them to see.

The previous evening, Friday 14th May, I met the National Trust's (NT) Matthew Oates who gave an excellent talk about Purple Emperors. Afterwards he asked me, because he knew I walked a butterfly transect on a NT property in The Chilterns, to have a look over an area of chalk downland recently acquired by the NT, and a place I have never visited before. To tempt me Matthew said "Duke of Burgundy" might be found there. So, on Sunday 16th, under a clear blue cloudless sky, I set out to find the site, and on locating it, I must say I agreed with Mathew's vision.

The site is small to medium sized but is very rich in cowslips and has a nice patchwork mosaic of Hawthorn giving shelter and roosting opportunities. It reminded me very much of the Duke of Burgundy site at NT's Ivinghoe Beacon. I scoured the area and found good quantities of Dingy Skippers & Green Hairstreaks but unfortunately I found no Dukes. The site is still a little gem none-the-less and it really does look like it should have Dukes there. It was particularly beautiful as I paused for a break and looked down the slope over the vivid greens and whites of the vegetation and the panoramic view of the countryside spread out in front of me.



Duke of Burgundy

Being a glutton for punishment and just in case I had lost my eye for spotting Dukes, I went straight over to Whipsnade Down (Bison Hill) and quickly found amongst all the usual spring suspects, six Dukes (they looked a bit darker in colour than usual this year I thought) and a lovely Grizzled Skipper. In all, a fantastic day in the

field.

But at this point my tale of the beauty of the May countryside takes a turn towards the more sinister. Two days later, on Tuesday evening I was working at home on my computer when I received a message from a friend in the local Wildlife Trust that said that a Butterfly Collector had been seen by a birdwatcher on the NT's Whipsnade Downs. The birdwatcher followed the collector and harassed him until he left the site. I informed the NT and other members of BC to ask them to help continue monitor the NT's downland sites until the Duke of Burgundy's flight period finished.

It saddened me that my beautiful Maytime was tarnished by this incident, but we do not live in a chocolate box world and reality sometimes gives us a wake-up call. On reflection it makes me quite cross that all the efforts of winter workparties to conserve rare downland butterfly species can be put in danger by a selfish person with a net.

NATIONAL BC MEMBERS' DAY AND ANNUAL GENERAL MEETING, 27th November 2004

PROGRESS UPDATE

As many of you will have read, we are joint hosts with the Beds & Northants Branch of this important event.

Although we were delighted to be asked, we quickly realised that the day would involve a lot of work and our first step was to form a small working group of Committee members from both Branches and search out a venue. It was important to find a hall, which could hold a specified number of people, have good public transport access and be relatively central for our own members to get to if involved in the organisation. Cranfield University Conference Centre at Silsoe in Bedfordshire was our choice and the University is very keen to be involved with Butterfly Conservation.

Although when we were asked to hold the event, November seemed a long way away, but it is now fast approaching and we need to ask you, our Branch members, for help. For the organisers, the day is going to be long, tiring and probably stressful. We want everything to go

smoothly and hope that everyone leaves feeling that the day was very enjoyable and that the two Branches did “a good job.” To help do this we need a band of Branch volunteers to be on hand during the day to help us. The more people that might be able to spare a bit of time during the day will enable the workload to be shared.

WE REALLY DO NEED YOUR HELP so please let Liz Goodyear of the Herts & Middx Branch know as soon as possible by telephoning 01920 487066 or emailing elizabethgoodyear@talk21.com - any offer of help will be appreciated and jobs will be allocated nearer the date. If you feel you have a particular organisational skill or would prefer to help in a particular way please do tell us!

Herts & Middx Goes Wild – Why don't you join in? - by Malcolm Hull

A surge in interest in butterfly gardening has meant soaring sales of plants and books on our stall this year. The hot summer of 2003 brought many more butterflies and moths into the gardens of Herts and North London, with Hummingbird Hawkmoth a particular novelty.

“What can I do to attract butterflies to my garden?” we are frequently asked. The answers are

1 Learn from other gardeners experiences. Our expert gardeners, Alan Downie, Malcolm Newland and Liz Goodyear are always happy to give advice. Recently Alan and Liz were asked to give talks at the Herts County Show where we also ran a sales stall. Another way to learn is through studying the literature and we offer the following publications, also available by post. Prices are subsidised by Butterfly Conservation.

- Gardening for Butterflies Leaflet (A4 folded) – free
- Gardening for Butterflies by Margaret Vickery – based on an exhaustive study carried out in many gardens nationwide over five years, this lists all the top 100 favourite nectar sources in their preferred order (A5 booklet, – 44 pages) Now £2.99 (Original Price £4.99)
- Butterfly Gardening by Jenny Steel. This newly published

book shows what to grow for nectar, how to encourage butterflies to breed and how to manage your garden in a butterfly friendly way. (A5 booklet 28 pages) £3.00 (cover price £3.50)

- Saving Butterflies by David Dunbar. A practical guide to the conservation of butterflies, suitable for larger gardens with sections on how to start & manage a wildflower meadow. Also much practical advice on managing the countryside for butterflies (Hardback book 8"x 8", 80 pages) Now £4.99. original price £ 9.99

2 Buy the right plants

This year we've grown & sold more plants than ever. Particular favourites are

- Birds-foot Trefoil – grows up to 20cm, either as a clump in a border or will grow with grass in a meadow/lawn. The larval food plant of the Common Blue butterfly, widespread across our region, but nowadays not very common. Planting a clump of BFT in your garden is a practical way to help this declining species & it was great to hear from a customer who bought a plant from us last year & has seen the species in her garden last summer for the first time. – price £1.00
- Other plants proving popular this year include Sedum Spectabile (for Red Admirals & Small Tortoiseshells), Golden Marjoram (Gatekeepers), Milkweed (Monarchs, should any be passing) Cuckoo flower (Orange Tip & Green-veined White) – price £1.00. Buddleia – No less than 8 different varieties in purple (light/dark), orange, blue, white or pink. Most will grow to 4-5 meters. Number one nectar source in the chart – price £2.50
- Hemp Agrimony – Likes damp conditions, but will grow well in a border. No less than 18 species came to this flower in Alan Downie's garden last year, including the elusive Purple Hairstreak. It grows to 1.2 – 1.5m high & has clumps of pink flowers in July & August – price £1.00

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If you'd like to order any of the publications by post, please contact Malcolm Hull by letter, email or phone (evenings & weekends) – contact details on back cover. There will be a small additional charge for postage at cost.

If you'd like to order plants please contact either Malcolm or Alan Downie and we'll make arrangements for collection. Or call in at one of our forthcoming sales stall events:

- **Saturday 3 July** – North Watford Show, Bill Everett Community Centre Leggatts Way, Watford
- **Sunday 4 July** – St Albans Festival of Life, St Peters St, St Albans. No admission charge
- **Saturday 10 July** – Long Marston, near Tring – Tea at the Tower, at the Old Church, Chapel Lane 2 pm – 5pm. Close to our own nature reserve at Millhoppers.
- **Sunday 5 September** – Epping Forest Festival, Chingford Plain 11am – 4pm

Field Trip Reports

A Spring Walk at Stanmore Country Park, 25 April 2004, by John Hollingdale

As with all walks where butterflies are high on the agenda, the weather is all important. This time we were lucky; the day was quite warm with a thin veil of cloud over the sun.

About ten of us set off to explore the Park and soon we were seeing Orange Tips visiting the few Lady-smock flowers that had opened. Holly Blue and Peacock were also seen in this first meadow. Also in the far distance a Cuckoo was calling.

The high cloud had a negative affect on the numbers and species seen and it was not until we reached the land fill site above the park that a Small Tortoiseshell was spotted. We were there to make sure that the Skylark was still present; it was. Also spotted were Swallows and Stock Doves. The Cabbage Shield bug, *Eurydema oleraceum*, was found on nettles close by.



Eurydema oleraceum

We visited the lake in Pear Wood and then made our way back through a strip of trees bordering the adjacent golf club to visit the site of a clump of native Solomon's Seal. There was some discussion about the rarity or otherwise of this plant in the London area. Botanical records of the London area are, at present, a bit patchy.

Also identified on our travels were single specimens of Small White, Comma and Speckled Wood.

We had an interesting walk and had not encountered the dreaded motorcyclists that had plagued the Park on previous weekends.

Fryent Country Park, 25 April 2004, by Leslie Williams

Butterfly Conservation, Barn Hill Conservation Group, Brent Council and the London Natural History Society teamed-up for this walk to explore a range of green habitats in Kingsbury and Wembley. The weather was warm and sunny.

Roe Green Walled Garden was the initial venue and the Gardens had been specially opened by Barn Hill Conservation Group. Features included a wide range of wildlife gardening displays, ponds and a tree nursery which support a range of common butterfly species. From there, the walk proceeded across Roe Green Park and then to Maffons field, which will act as a link to and an extension to Fryent Country Park. The walk crossed an old green lane and emerged into Fryent Country Park itself, with the wooded Barn Hill rising in the distance. A Peacock butterfly was observed here.

Proceeding to Bush Farm Orchard the walk was met by Barn Hill Conservation Group on one of their practical conservation projects. The Orchard has been restored and includes a variety of traditional varieties of fruit trees, a perimeter hedge and other habitats. Tea and coffee were kindly provided by the local volunteers, before the butterfly walk set off to walk one of the two butterfly monitoring transects at Fryent Country Park.

The first Orange Tip butterfly was observed near to Gotfords Hill. Other species observed were more Peacocks, and also Speckled Woods, Small Tortoiseshells, a Comma, and a Green-veined White. A male Brimstone was seen on Barn Hill, and on reaching a clump of Alder Buckthorn bushes at Beane Hill the walkers immediately observed both a female and a male Brimstone.

The walk continued through the meadows and alongside hedgerows and ponds that are being restored by Barn Hill Conservation Group and Brent Council. The Park is managed organically and the hay holds the Soil Association Organic Standard.

The walk finished back at Roe Green Walled Garden

Aldbury Nowers, 15 May 2004. Third Time Lucky Weather-wise! by David Chandler

After the past two Aldbury field trips being dogged by bad weather, I wish to thank Liz & Chris Emary, Michael Pearson, Martin Hicks & Michelle Henley, Jim McGraken, Dianne Andrews, "Colin", Peter Beachamp, (and a guest appearance of Malcolm Hull) for their continued support on Sat. 15th May at the joint branch field trip to Aldbury Nowers (Duchies Piece).

This year the weather was dry & sunny (21 degrees + 20% cloud cover) as the party prepared to set off up the hill towards the general area where Dingy & Grizzled Skippers have been found in the past. At the car-park Chris saw a Blood-veined moth and, on the path leading up to the site, we saw a Mother Shipton moth & a Small Yellow Underwing moth. Martin Hicks bought his transect data along and this proved an invaluable aid to our quest.



Mother Shipton
Callistege mi

We walked along bridle-path by the edge of the scrub next to the site proper and found a Small Tortoiseshell, Cinnabar Moth and Green Carpet Moth. At the small tri-angular area of chalk-down we saw a couple of Small Coppers and chased a Green Hairstreak through the bushes; Orange Tips, Large, Small & Green-Veined Whites also made an appearance.

We then made our way through the lower fields to the Ridgeway path and were greeted by Brimstones, more Small Coppers and Peacocks; then up through the woods to the specially cleared area where cowslips have been planted. It is hoped that the Duke of Burgundy may re-colonise this area one day. At this point we saw a "brown job", which for one fleeting moment of excitement, I thought was one of the missing "Dukes", I chased after it dropping my clipboard, but on alighting it was found not to be a Duke, but a Burnet Companion. However, we were then rewarded shortly after with a lovely female Holly Blue fly-by.

We returned to the lower slopes, meeting Malcolm Hull on the way down. At the bottom of the site, near the big briar bush where the

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Grizzled and Dingy Skippers have been found, a solitary Speckled Wood made an appearance and another Green Hairstreak flashed by.

It was now nearly 1pm and we all went happily back to our cars. Unfortunately I still have not been able to show people the Dingy and Grizzled Skippers of Aldbury but there is always next year and, if there is demand, the promise of another field trip to Aldbury to look forward to!



Burnet Companion
Euclidia glyphica

SUMMARY

Number of species seen (11): Total Number Butterflies (60):

WHITES:

Brimstone 11, Large White 5, Small White 4, Green Veined White 11, Orange Tip 14

BLUES & COPPERS:

Green Hairstreak 4, Holly Blue 1, Small Copper 5

ARISTOCRATS:

Small Tortoiseshell 1, Peacock 3

BROWNS:

Speckled Wood 1

Birds of note: Blackcap, Kestrel & Sparrow-hawk.

National Moth Night 22nd May 2004, by John Hollingdale

As usual an event dedicated to seeing Lepidoptera attracts the 'wrong' sort of weather. If butterflies are the quarry it rains and if it is moths the sky is clear, the wind is in the 'wrong' direction and it is cold. So it was with National Moth Night in Harrow.

Four of us gathered in Stanmore Country Park to catch and identify the numerous moths that fly at this time of year. The NE wind and promise of a ground frost were not promising omens. We did see six or was it seven macro moths of five species. The first to arrive was a Pale Prominent followed by Engrailed, Green Carpet, Seraphim and Silver Ground Carpet. Strangely there were no 'micro' moths. By 10.45pm the temperature had dropped to 5C and we decided to pack up.



Engrailed *Ectropis bistortata*
Photo: Ian Kimber

The Hertfordshire & Middlesex Purple Emperor Project, by Andrew Middleton

Since our first sightings of Purple Emperor in Herts back in 1999, Liz Goodyear and I have been busy in the extreme developing the Purple Emperor project as Species Co-ordinators for our branch. Our main aims were, and still are, to try and gain a better understanding of this rather elusive species in our area so

that we may try to bring about some conservation of its habitats and colonies over the longer term. We also arranged branch visits to Broxbourne Wood NR in July 2003 which were successful and popular, and further visits are planned this Summer for 10th and 18th of July (see field trip programme leaflet). Of course, you stand a good chance of seeing the species there through much of July, and if you aren't about to spend large amounts of time in an often futile search elsewhere in the Herts & Middx area, Broxbourne Wood NR is the place to go.

Back to conservation, and we can report that the Purple Emperor Species Action Plan (SAP), part of the Herts Biodiversity Action Plan review (BAP), was taken through to final draft, but is somewhat in the air at present as the BAP Officer recently moved on. Still, on we go liaising with landowners and managers, trying to raise awareness and keep decent numbers of sallows in our woods. We would like to thank all those managers, landowners and other bodies who have helped with the project to date; sallows have indeed been considered in a fair number of forestry operations in Hertfordshire since 1999. With Sharon Hearle, we also visited Andrew Hoppit, of Forestry Commission East of England Conservancy, in May, to discuss woodland management and woodland grant schemes.

On to more interesting things. Liz and I were thrilled to be invited to present our Purple Emperor work at a Purple Emperor Day in April 2004, arranged by Emily Funnell (Butterfly Conservation), Matthew Oates (BC & National Trust butterfly expert) and Forest Enterprise, and held at Alice Holt on the Hampshire/Surrey border. The first talk, given by Ken Willmott, was all about his observations of male

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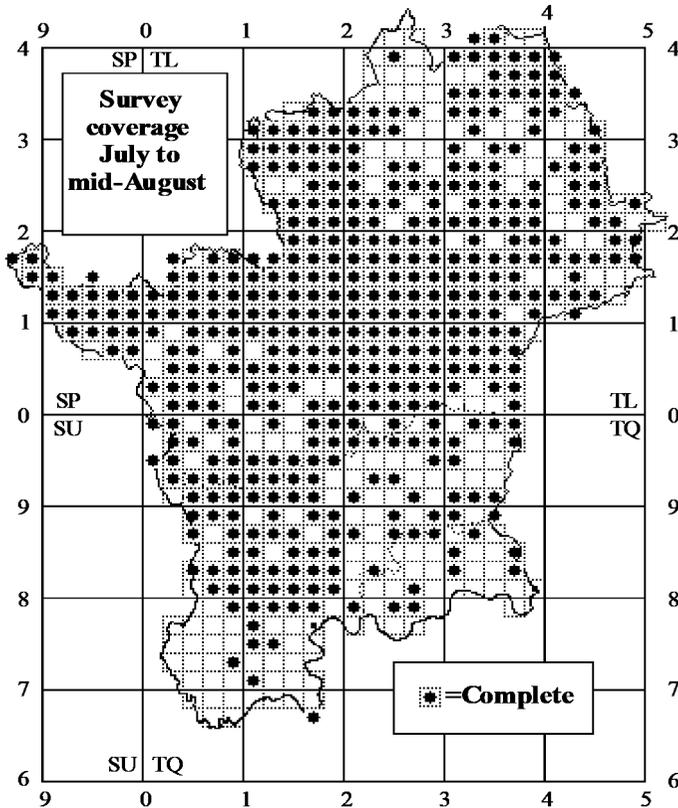
territorial activity, in particular at Bookham Common, over several decades. Ken is a national expert whose publications on the subject should be sought out by anyone with even a passing interest in tracking down a master tree. After his very interesting presentation, next up was Matthew Oates, taking the subject on to a wide stage looking at territories in various woodlands and counties. Matthew is doing a great job in generating interest in the phenomenon of male assembly areas, and as ever his interpretation of the whole subject created a good deal of interest. Then it was our turn, and although quite nervous as many people will be aware once we got talking about Purple Emperors there was no stopping us and we ran well over time, finishing off with a good bit of footage of the beasts in the tree-tops. Matthew then took the group into the field to see some assembly areas, and helped by his descriptions, we could well imagine the Purple Emperors enjoying these particular areas come July.

That's all for now, other than to mention our Purple Emperor reports for 1999-2002 (supported by the Herts. Natural History Society) and our recently published 2003 update (supported by the Corporation of London). The first is 60 pages long and includes many historical notes (£5 plus £1.50 p&p), the second is 30 pages (£3 plus £1.50 p&p) and includes some superb images of the butterfly taken last July by Nick Sampford in Broxbourne Wood NR. See you there sometime soon.

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Distribution Maps Update

As many of you will be aware, this season's butterfly records complete the next 5-year update of the UK butterfly atlas. Accordingly, great effort is being made to ensure complete coverage of our Branch area within this period. A number of tetrads are still un-recorded. The map below gives the current coverage for July-August, from which 'empty' tetrads can be identified. Please make an effort to visit these gaps and record the butterflies present. Up-to-date information on remaining 'gaps' can be obtained from the branch website www.hmbutterflyconservation.org.uk or by calling either Liz Goodyear or John Murray (both sets of contact details are on the back cover).



A Few Unusual Facts About Butterflies And Moths - David Spooner

The following article first appeared in the East of Scotland Branch newsletter, and is reproduced here with permission of the author.

The largest known butterfly is the giant birdwing, *Ornithoptera alexandrae*, Queen Alexandra's Birdwing which has wingspan of over 11 inches (28 cms.)

The smallest known butterfly is the Dwarf Blue, *Brephidium barberae*, of South Africa with a wingspan of only 14mm. (0.55").

The smallest butterfly in the UK is *Cupido minimus* with a wingspan of 19-25mm, 0.75-1.0".

The slowest wingbeat of any insect is 300 a minute by the European Swallowtail, *Papilio machaon*. The average wingbeat of butterflies is 460-636 a minute.

This compares with the fastest wingbeat of any insect (by the tiny midge of the genus *Forcipomyia*) which has been recorded under natural conditions beating its wings at 62,760 a minute.

Some species survive in Britain from the last Ice Age, but most arrived after the last ice sheets receded. However it is an open question as to whether Scotland at that time had a flora and fauna like present-day Norway. What happened to the marsh and forest species still seen today in Norway, Denmark, Holland and, to some degree, in north-western France? Were there for a time species of butterflies and moths that never re-colonized because of the formation of the North Sea?

Caterpillars are some of the greediest creatures in the insect world. Compared to people, butterfly experts have predicted that if a 6lb human baby ate as much as a Monarch caterpillar, the baby would grow to 8 tons in 2 weeks.



United Nations Endangered Species Series
First day cover, March 13, 1998

The word `caterpillar` was first used in its modern sense and spelling by Dr. Johnson when he was compiling his famous Dictionary in the 1740s and 1750s (the first edition was published in 1755). Before that, the original was `catterpillar` derived from the Norman-Picard word `chatepelose`, which was literally a hairy cat. In the 16th century, the `pillar` element became associated in people`s minds with `pillar` - ravager or pillager. And so the word was also used to describe an extortioner. Shakespeare uses it in Richard II where Bolingbroke, the future Henry IV, describes Bushy, Bagot and Green as "The caterpillars of the commonwealth."

The distinctive green swallowtail caterpillar has a tail which puffs up into a phony head, complete with `eyes`, to fool enemies into attacking the wrong end. If enemies do attack, the caterpillar gives out a nasty, pungent stink a little like rotting pineapples, from a special organ behind its head. Insects represent around 80% of all animal species.

It is a good clue when seeking out a specialist butterfly, as opposed to a free-flying countryside one, to look for its caterpillar`s food plant. But research in an American journal has recently surprisingly shown that there is no direct relationship between butterfly species richness and the plants. Looking at 217 Californian butterflies in their environments, and taking in all 5,902 vascular plant species including 552 known to be fed on by larvae, the researchers found that when the water-energy variable was mixed in with plant suitability along with topographical factors, plant richness had nothing to do with butterfly numbers. They then looked at 37 butterflies with specialist diets, and found that when the other environmental variables were put into the equation, the plant-butterfly connection was seriously weakened. They concluded that "plant diversity does not directly influence butterfly diversity but that both are probably responding to similar environmental factors." Of course in the UK temperature is the simplest determinant of numbers. An interesting local butterfly in this respect is the Northern Brown Argus (*Aricia artaxerxes*) which although a specialist, is often found well away from its food plant of rock roses, clearly enjoying spreading its wings and duelling with the Small Heath (*Coenonympha pamphilus*). It has been said that a landing on Mars will help to monitor climate change. As the previous feature suggests, the proximity of insects to changes at ground level offer the data for trillions of pounds or dollars cheaper. We must

spread the lepidopteral word!

A butterfly species has been discovered for the first time that has suffered wing reduction to the point where it is flightless. This phenomenon is well enough known in moths, not least in the common Winter Moth, *Operophtera brumata* and the less common in Scotland, Northern Winter Moth, *Operophtera fagata*. But in the high Andes grassland in Venezuela - called the páramos - the female of the species *Redonda bordoni* has been found to be flightless (brachypterous). This is less likely in butterflies because the female has to be able to fly to search for larval host plants, but also to be able to actively participate in mate location and courtship. These however simply scatter their eggs rather as the Ringlet does. The females were discovered over a period of 7 years research (1993-2000) and are all highly sedentary. Write the researchers, "even when we tried to disturb them their reaction was simply to walk further up the grass stems on which they were perching. When one of the individuals was picked up and dropped, it fluttered weakly for a short distance before landing and it appeared incapable of sustained flight." Using the commonest plant in the area, low tussock grasses, the females are able to allocate more time to egg production, thereby increasing fecundity and fitness. Páramo weather conditions are extreme, with strong winds, low daily temperatures, high radiation and frequent rainfall. In addition, the páramo of El Batallón where they were found is one of the coldest in Venezuela. Its seasonal rainfall lasts for 10 months. As the researchers conclude, "flight in this environment would be energetically costly, and might also explain the occurrence of male brachyptery in an endemic, diurnal notodontid moth, *Xenomigia brachyptera*."

"The Celebes [now Sulawesi] possesses 24 species of Papilionidae or Swallow-tailed butterflies, of which the large number of 18 are not found in any other island. If we compare this with Borneo, which out of 29 species has only two not found elsewhere, the difference is as striking as anything can be. The insects of Celebes present us with phenomena more curious and more difficult to explain than their striking individuality. The butterflies of Celebes are in many cases characterised by a peculiarity of outline, which distinguishes them at a glance from those of any other part of the world. It is most strongly manifested in the Papilios and the Pieridae, and consists in the forewings being either strongly curved or abruptly bent near the base,

or in the extremity being elongated and often somewhat hooked. Out of the 14 species of *Papilio* in Celebes, 13 exhibit this peculiarity in a greater or lesser degree, when compared with the most nearly allied species of the surrounding islands. From the analogy of birds, we should suppose that the pointed wing gave increased rapidity of flight, since it is a character of terns, swallows, falcons, and of the swift-flying pigeons. We might suppose, therefore, that the butterflies which possess this peculiar form were better able to escape pursuit. But there seems no unusual abundance of insectivorous birds to render this necessary; and as we cannot believe that such a curious peculiarity is without meaning, it seems probable that it is the result of a former condition of things, when the island possessed a much richer fauna, the relics of which we see in the isolated birds and Mammalia now inhabiting it; and when the abundance of insectivorous creatures, rendered some unusual means of escape a necessity for the large-winged and showy butterflies. Celebes must be one of the oldest part of the Archipelago. It probably dates from a period not only anterior to that when Borneo, Java, and Sumatra were separated from the continent, but from that still more remote epoch when the land that now constitutes those islands had not risen above the ocean. Such an antiquity is necessary, to account for the number of animal forms it possesses, which show no relation to those of India or Australia, but rather with those of Africa; and we are led to speculate on the possibility of there having once existed a continent in the Indian Ocean which might serve as a bridge to connect these distant countries. While it is poor in the actual number of its species, it is yet wonderfully rich in peculiar forms; many of which are singular or beautiful, and are in some cases absolutely unique upon the globe." (Alfred Russel Wallace, *The Malay Archipelago*).

MOTHS - Some Frequently Asked Questions, by Andrew Wood



Brimstone Moth



5-Spot Burnet Moths
(day flying)

What is a moth?

A moth is an insect in the group called lepidoptera which means scaly wings. All moths have wings covered with scales of varying colours which under a microscope can be seen arranged like the tiles on a roof. These scales give the wings colour and pattern and are the main way of identifying a species. In a few species these scales fall off quickly and the moth has transparent wings. As moths age they also lose scales through bird attack, brushing against rough surfaces etc and they may have bare patches on the wing.

What is a butterfly?

A butterfly is also an insect in the group called lepidoptera. All butterflies also have wings covered with scales of varying colours which under a microscope can be seen arranged like the tiles on a roof. These scales give the wings colour and pattern and are the main way of identifying a species.

What is the difference between a moth and a butterfly?

There is no fixed rule on this:

In Britain all butterflies fly by day, but so do quite a number of moths, although most fly at night.

Many moths are dull and butterflies are brightly coloured, but there

are also many bright moths and dull brown and grey butterflies.

Moths eat clothes and butterflies do not. A few species of moths have caterpillars that may eat textiles (they will also eat fur, feathers etc in the outside world) No butterfly does, but some such as the Large and Small Whites are horticultural pests - "Cabbage Whites"

Butterfly antennae have clubbed ends and moths don't. This is more or less true (except for burnet moths) but in reality how often do you notice the antennae of a moth or butterfly

The best thing is not to worry but to accept that in the English (but not in many other languages) butterflies are a group of related species of lepidoptera that do not fly at night and moths are all the other lepidoptera that are not butterflies. The difference is not important.

How many moths are there?

In Britain there are about 2500 species recorded. In southern England a county list will contain around 1500 species. How many depends on climate and the variety of habitats. An ordinary suburban garden might have a list of over 500 built up after a few years recording

What are micro and macro moths?

These terms are often used to distinguish "larger" moths from "smaller" moths but like butterfly and moth it has no precise meaning outside of "macro moths are moths from groups most of whose members are "large" (say over 25mm/1 inch) wing span and micro moths are from groups most of whose species are smaller than that. But there are exceptions to these size rules

Identification guides to macro moths include the small and difficult to identify pug moths because of the family they are in, but ignore common, easily seen species like the Small Magpie (left) which are much larger and found in most gardens, because they are in a micro family. The difference is not really important.



Do moths live long?

Most moths live for several months but will spend this as an egg, a larva (caterpillar) and a pupa (cocoon) as well as an adult. Some larvae such as that of the Goat moth which eats very low in nutrition wood spend

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several years in this state, Some stay as a pupae for several years. As an adult life can vary from about 48 hours for the Water Veneer to almost a year for species that hibernate over winter such as the Herald.. Many of course have short lives as caterpillars or adults ending up as food for bats, birds, spiders and other predators

What is the point of moths?

Moths like all other living creatures are part of the vast diversity of organisms whose inter relationships keep life going on this planet. They are part of many food chains and the loss of a species will have consequences for many plants and animals. Changes in their population and occurrence can tell us about changes in the environment. They are also interesting for their own sake, there is nothing wrong in just admiring, their colour, pattern and behaviour.

What do they eat?

Moths eat differently at different points in their lives. Caterpillars are basically eating machines and eat plants of all kinds from moulds and algae to trees, flowers and grasses. A few such as the Dunbar also eat other caterpillars. As adults they are breeding machines and need energy and so like butterflies they drink nectar from flowers and honeydew from leaves. Quite a number do not feed as adults but live off fat reserves built up as a caterpillar.



Ruby Tiger

Can they all fly?

No. In a number of species the female is completely or almost wingless and attracts males by releasing pheromones. In a few species the female is winged but unable or very reluctant to fly and behaves in the same way. There is a family known as bag worms whose caterpillars construct a shelter of plant debris and whose females never leave this shelter. In some species the adult female has no eyes or legs either and is almost literally an egg machine. Some moths apart from the adult stage spend all their time underwater.

How do you find moths?

Day flying moths can be seen in the same way as butterflies, flying in

warm, bright weather and often visiting flowers.

Some nocturnal moths are easily disturbed by day when you brush against plants or trees.

But the main way is to attract them in some way based upon their habits:

Lights - many moths are attracted to light (there are several theories as to why, but there is no agreement on the whole reason why). A lit window will attract some but the main way is to use moth traps. There are a variety of designs but they are all basically a box with a light over it. The moths fly towards the light and drop down into the box which is filled with egg boxes in which they rest. Some moths are more strongly attracted than others and will settle near but not in the trap. Most lights use special bulbs that transmit more ultra violet light than usual as this is the type of light that most attracts moths.

Food - moths that feed, like birds, can be attracted to food. This is known as sugaring. A mixture of black treacle, muscavado sugar and ,cheap beer is gently heated to create a very sweet and slightly alcoholic mixture. Some flavouring such as rum or vanilla can be added when it is cold. This is painted onto tree trunks or posts, and moths are attracted to this easy meal. A more recent method is wine ropes where rope is soaked in solution made of cheap red wine and sugar and hung over bushes to attract the moths.

Caterpillars often feed at night and the best way is to go out and look at plants with a torch. A few feed by day and can easily be seen if they rest out in the open. But on the whole they are much less well known than the adult moths.



Mullein Moth caterpillar

**Copy Deadline for the September Newsletter will be
26 August 2004**

Your Newsletter Needs YOU!



There has been a noticeable drop-off in the number of contributions to the newsletter coming from Branch members. Without your contributions, it is very difficult to provide you with an interesting and varied newsletter.

NB it helps the editor if you can submit an electronic copy of your article (but don't worry if you can't). Files can be on disk or sent by e-mail to ian.small@lineone.net or send an article by post - address on back cover



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. Fourth Sunday of the month. Meet at 10.30 am. John and Margaret Noakes need your help. (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. Third Sunday of each month. Meet 10.00 a.m. in the lay-by, near Tring station. For details ring Alan Strawn (new reserve warden) on (01442) 232946

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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