

**HERTFORDSHIRE AND MIDDLESEX
BRANCH NEWSLETTER**

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*Season's
Greetings*



**BUTTERFLY
CONSERVATIONSM**

Busy Times

by Gavin Vicary

There seems to be a lot going on at the branch at the moment and conservation issues in particular are keeping us all busy. The species co-ordinators, that were appointed just over a year ago to try and improve the lot of our rarer species have proved themselves to be extremely knowledgeable and are also ensuring that practical conservation work is taking place to achieve this goal. Andrew Palmer is working closely with the landowner of our last Small Blue site to ensure the spread of its foodplant, Kidney Vetch. Malcolm

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Hull has also identified the need for management for Brown Hairstreak at Bricket Wood and is campaigning for the species habitat management needs to be accommodated there.

One of the real surprises to me in recent years has been the increase in records of Purple Emperor. Andrew Middleton and Liz Goodyear have shown just what results can be achieved through diligent fieldwork and determination. Again this is being reflected in practical management terms as they are actively advising landowners and land managers on management of sallows in woodland and pushing for inclusion in action plans. Liz is of course also our secretary and keeps the less well organised of us in some sort of order as well as doing a brilliant job with the superb website which I recommend a visit to:

(<http://www.hmbutterflyconservation.org.uk/>)

The other species co-ordinators, Brian Jessop, Richard Bigg, Nigel Agar and John Whiteman are all working hard on Dinky Skipper, Wall, Green Hairstreak and the Fritillaries. Indeed David Chandler reports that Dark-green Fritillary is doing well just over the county border in Bedfordshire and eventually there may be some hope of recolonisation into Hertfordshire if suitable habitat is available.

The prospects for the Grizzled Skipper have certainly increased as a result of all the hard work done by Christine Shepperson. Andrew Wood as well as co-ordinating for White Admiral also organises our effort with regard to moths and liases closely with Colin Plant, the county moth recorder. In addition Brian Sawford is also available with expert advice on conservation issues.

The basis for our conservation work has been the annual report that has given us an up to date knowledge of the distribution of all the different species. This has now been produced for seven consecutive years and John Murray, Michael Healy and Andrew Wood are already collating this years records for the next publication in Spring 2003.

John Stevens has been very active in obtaining sponsorship to cover the costs of producing the report which would otherwise be a substantial drain on funds. He is also busy organising next year's field trip programme. In addition to the branch report, Ian Small produces one of the best, if not the best, of all branch newsletters. Contributions are always needed and if anyone out there is willing to put pen to paper please send articles to Ian.

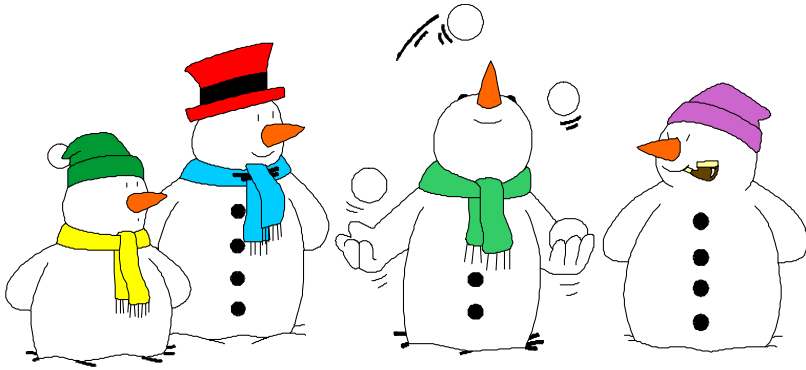
Alan Downie advises a number of organisations on how to be butterfly friendly or creating butterfly gardens. He also grows massive numbers of plants that are sold at the sales events and raise significant funds for the branch. Indeed all the people involved in sales, Malcolm Hull, Malcolm Newland, Dave Chandler and others put in a lot of hard work and the funds generated ultimately give us the ability to do the conservation work that is so essential. John Hollingdale our treasurer reports that the branches accounts are in good order as a result.

At Millhoppers we are trying to introduce some low intensity grazing as a traditional way managing things. This is the most efficient way of maintaining the reserve in optimum condition for the wildlife that occurs there as well as being less hard work than mechanical means. John and Margaret Noakes have been on a course concerning grazing animals and have also been very successful in obtaining grant funding in order to make this aim a reality. Margaret also looks after membership which has risen steadily to well over 500.

This all comes at a time when there seems to be more interaction and co-operation between the many wildlife organisations working within Hertfordshire and Middlesex which can only be for the good. Indeed biodiversity action plans are about to be reviewed and we have been invited to liaise with other organisations such as Herts & Middx Wildlife Trust, Herts Environmental Record Centre and Herts Natural History Society who are all involved in revamping them. The Wildlife Trust have also been very keen to discuss management for duke of burgundy at Albury Nowers

The AGM was very well attended. The formal proceedings were kept to a minimum to give as much time to members slides and photos as possible and as usual these were of an exceptional standard. Such was the level of interest that we are going to have a members evening in March. This will give branch members a further opportunity to show photos and slides, to raise any questions or discuss issues that are of interest and generally chat about things with people who have similar natural history interests.

Wishing all readers a Merry Christmas and Happy New Year.



Annual General Meeting 2002, by Liz Goodyear

The 2002 Branch Annual General Meeting was held on Wednesday, October 30th at the Dagnell Centre, in St Albans, on a damp, murky and fairly miserable evening. Despite the weather, 31 members turned up, and we nearly ran out of chairs and agendas!

Our Chairman, Gavin Vicary welcomed everyone to the meeting, the 2001 minutes having been distributed were agreed and accepted and with no matters arising, he proceeded to give his Report. Gavin felt that the success story of the year had been the continuing progress of the Conservation Committee. The committee was now in dialogue with several other organisations and he felt much was being achieved. Species co-ordinators were ensuring positive conservation management, one case in particular being the Small Blue colony. Likewise the Purple Emperor co-ordination involved a lot of hard work, and many more sightings had been reported this year, which was very encouraging. Gavin ended by thanking the committee and all branch members for their support and for giving up their time so freely.

Next came the Treasurers Report - John Hollingdale, distributed copies of the Financial Statement and explained that due to the financial year now ending in April, the figures were distorted. There wasn't really as much money in the bank, since the accounts were prepared before several bills had been paid, including the Annual Report.

Margaret and John Noakes continued with their Membership and Millhoppers' reports and full details of these can be read elsewhere in the newsletter. However, following on from Margaret's concerns that we were not addressing the needs of our more southerly members, a straw poll was taken to find out where everyone had come from that evening. It turned out that there were 6 members present from Middlesex/London area which represented c30% of the membership present, the same figure being the approximate proportion of actual members coming from that area.

One formality of the evening was the election of Branch Officers. Under the rules of the constitution Michael Pearson was elected to the committee and John Murray and Alan Downie re-elected. Finally, under Any Other Business, Christine Shepperson, thanked Gavin and the Committee for their hard work, Liz Goodyear thanked everyone for contributing news to the website and Emily Funnell the London Regional Development Officer, introduced herself. Emily also explained that the Anglia Regional Development Officer who would cover Hertfordshire should be appointed soon.

At this point the formal side of the evening ended and after a short break, where everyone had a chance to purchase items from the sales stand we sat down to enjoy a very enjoyable selection of slides and for the first time, digital images. Malcolm Hull had borrowed a special projector and had created a very varied slide show. These images ranged from a selection of Andrew Wood's minute micro moths being displayed at a massive increase in scale, to Roger Gibbons' amazing selection of "foreign" blues. Everyone agreed that identifying "foreign" blues was a skill on its own! (*see article on P12*). Following on from the digital images, we were then treated to a selection of conventional slides. These were as equally varied and included some pictures that Nigel Agar had taken which he needed help identifying. With the wealth of expert knowledge in the room this didn't take very long! Everyone present felt that the slide shows were excellent and it was very unfortunate that we had to finish by 10 o'clock and some of

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the pictures were missed out. (Those of you with the internet will see most of the digital images on the website at either <http://www.hmbutterflyconservation.org.uk/> or <http://www.bengeomoths.co.uk/>).

There was no doubt that we would have happily continued looking at the pictures and talking for considerably longer than time allowed. The success of the second half of the evening resulted in something similar being arranged (see below) and I would recommend to anyone who didn't come to the AGM to come along. As one member commented "*I thought it was a very enjoyable evening - not often you can say that about an AGM!*"

LOOK!

Winter Meeting
Cross St. Centre, Dagnall St., St. Albans (map in last newsletter). Wednesday 26th March 2003, 7.30 for 8pm; to finish at 10pm

Following an introduction from John Murray, each of the species co-ordinators will provide an update on the status of their target species, leading to an open discussion of each. Slides and digital images will be shown. We look forward to an informal evening, with lots of chat!



Members Report 2002, by Margaret Noakes

Membership has continued to grow over the last year, making us the fourth largest branch in the country, Hampshire, Surrey and Upper Thames being just ahead of us. This clearly has implications for all of us, not least for our Branch committee and also our conservation committee, where we are working on a particularly broad canvass.

Just a few figures; at the last count the membership total was 532, of which well over a third live in the London area and Middx. The most northern limit of Hertfordshire, Royston has 7 members; Letchworth, Baldock and Hitchin have 20 and in the east of the county, 10 members are from Bishops Stortford. But the bulk of our members, not surprisingly come from St Albans, Watford and the environs of Stevenage.

We are fortunate to have members from Singapore and Germany as well as Bucks, Beds, Cambridge, Essex, Leicester and Oxford. It is good to have you with us; please make yourselves known to us when visiting our " neck of the woods".

We have 24 Life Members, who, in a recent decision taken by the powers that be, will be affiliated to their local branch at no cost. The impact of Gardening For Butterflies has brought further new members into our Branch.

Each month I receive updated information about recently joined members of our Branch, with a list of lapsed members, so, as you can probably understand, these figures change regularly.

Finally I would like to throw a few balls into the air. With such a large Branch covering such a huge area it seems to me that we cannot hope to provide a situation that fulfils the requirements of all our members, or even a small number of them. Perhaps the majority of our members are happy just to receive the newsletter and our annual report but perhaps there are large numbers who would be able to participate more if there were more local activities relatively nearby. We are already trying to do much more in sharing activities with our neighbours but do we need to split into a Hertfordshire Branch and a London and Middx Branch? And would you be prepared to participate more if somebody was able to give you a lift? If you have any thoughts on these ideas please do let me know and they can be discussed in our future committee meetings

Last but not least, a very warm welcome to all those new members that have joined us over the last year.

Ps. I have some spare copies of our Annual Report 2001 and a few back numbers of our newsletters. If you are a new member and would like to receive either of these, please do give me a ring.

Millhoppers Report 2001-2002, by John Noakes

The reserve has really not recovered from the neglect due to last year's foot & mouth outbreak. Furthermore the manager was incapacitated for the first few months of 2001! Management work on the grassland was minimal and consisted of just maintaining the paths around the reserve. Resulting from this hogweed, columbine and nettles have invaded the grassland. Worse still the hogweed has seeded around profusely and poses an even bigger threat for next year.



Grass and weed cutting commenced again on 12th Oct.. For those not familiar with our reserve and grass management regime, we cut the herbage with a large power scythe, which has a 1 metre wide cutting blade. Following the cutter operator come two or three volunteers with wooden rakes piling up the "grass" into heaps while another gathers it up with a pitch fork then tossing it to the base of the nearby hedge. It is all rather reminiscent of a scene from a Tolstoy novel- making hay while the sun doesn't shine!

Scything through hogweed is quite an experience, the dried umbels being above head height and as the cutter engages the hollow stem, it vibrates furiously before falling, deluging the operator with a shower of seeds which seem to be a mixture of muesli and confetti. The seeds seem to penetrate to the most extraordinary sites of one's anatomy! If the process is to be repeated next year I think a grant for body armour will be needed.

In February we obtained a grant from the Countryside Management Services to have pollarding work done on five vulnerable black poplar trees. The same organisation, together with money left over from the Environment Agency grant funded a stretch of hedging in the first compartment in March.

In the planning sense we have moved a little nearer to our goal of grazing. The farmer is still willing to go ahead, providing there is secure fencing. A definitive estimate for the work has been obtained. The figure for this being approx. £3250 +VAT. I have approached Dacorum for help but have had no response. More hopefully Awards for All (Lottery Grants for Local Groups) have accepted my application for consideration but we will not know the outcome until later in the year. Our group committee has agreed to underwrite any shortfall together with a contribution from the Millhoppers Management Group. Even if the grant fails it is possible that we could fund the scheme.

To prepare ourselves for grazing John & Margaret Noakes attended a course on grassland management at Losehill Hall, Peak District National Park on 28/29th Oct 2002.

Regular butterfly transects were carried out on the reserve from April to September, although the particularly significant period in July was sadly missed when other pressures made recording impossible. This is the time we have seen large numbers of Ringlets in past years, but certainly they were recorded in early July. Throughout the year we have recorded many more Commas than before and our concerns about Tortoiseshell numbers seem to be unfounded.

On July 6th Christine Shepperson visited the reserve in search of dragonflies. It was not a particularly good flying day for these insects but much excitement was generated by discovering a White-legged Damselfly, which not been seen here before.

Following along the theme of the unusual, green flowered helleborines were found in a couple of location in July -not spectacular but has a status bordering on rarity.



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Colin Plant with a number of his midnight moth desperados held a gathering on 14th Sept. The target moth of the night, Lemon Sallow, did not put in the hoped for guest appearance. The good news was that on this occasion we were not raided by the police but we were circled a number of times by a helicopter. A list of the haul recorded so far for the reserve amounts to 116 species, over a four year period.

In summary, not the best of years but I think we can be optimistic about the reserve if we can obtain funding to enable grazing to be introduced.

A report on the Grazing for Wildlife is given below:

Grazing for Wildlife, by John Noakes

This course was held at Losehill Hall in the Peak District on 28/29th Oct 02 Attended by John and Margaret Noakes.

Key issues

- Importance of having an overall aim with specific objectives.
 - Knowing what is there on the reserve.
 - How to achieve the objectives using livestock.
 - It is a complex issue with no easy solutions.
 - Characteristics of the range of stock.
 - Regimes for using them.
 - Working with what is available.
 - Importance of animal husbandry.
 - Health Risk Assessment.
 - Contract with Grazier.
 - Public consultation.
-

What has happened so far at Millhoppers?

- Established a relationship with a local farmer, who manages the grazing at Tring Park.
 - We can only work with the animals he has available; probably young cattle.
 - Our preference would be to have them on site from autumn through the winter.
 - Numbers would depend on food available and our requirements
 - Estimate for fencing and grant application made.
-

Some of the issues that need to be resolved

- Public consultation. Local people walk dogs through the reserve. Fencing could impede access. Temperament of cattle.
- Probably cattle- but what type and what regime?
- Husbandry i.e. security, monitoring, water supply, risk assessment.
- Contract with Farmer

An Elm for Your Garden? by Malcolm Newland

Further to the articles in recent newsletters concerning the Hybrid Elm Pilot Study I have had an elm tree in my garden for several years, the trunk of which will never reach a thickness to be of any interest to the beetle which spreads the fungus causing Dutch elm disease.

The tree in question is the golden elm "Wredei" which is columnar in habit, slow growing and, having yellow foliage, looks particularly attractive against a dark background. Although deciduous, mine still has nearly all its leaves in mid-November despite the recent gales.

Will female White-letter Hairstreaks or Commas lay their eggs on it? I cannot say for certain, but a few years ago I found caterpillars on it which looked identical to those of the White-letter Hairstreak. I went and bought some muslin and sleeved the branch that they were feeding on. What happened to the caterpillars after that I don't know as they escaped somehow and I never saw them again.

This year for the first time the tree appeared to be producing some seed which may enhance its attraction as a larval food source.

Further information on the golden elm is available on the Internet together with the names of some suppliers and I would certainly recommend it as an unusual, beautiful and, possibly, useful addition to any wildlife garden with the added benefit of taking up very little space.

Have You Seen A Wall Brown This Year? by Richard Bigg

I have only had two sightings reported to me. Is this really the total for the year? If you know better then please give me the details. As a minimum I would like:

- Name and address of observer.
- Date and time.
- Site name/ location. Map reference.
- Type of terrain in the local area.



Please send to Richard Bigg, 91 Fordwich Rise, Hertford, SG14 2DF.

I would also be interested to receive information on sites where you have seen this species in say the last five years.

French Butterflies, by Roger Gibbons

Five years ago my wife and I started to take our holidays in France rather than the popular holiday resorts, starting in 1998 with two weeks in Vendee on the Atlantic coast. Butterfly watching had always been an element of any holiday prior to that, but the wealth of different species persuaded me that the time had come to buy a camera and start visiting the best parts of France.

The next year, armed with a camera and macro lens, we spent two weeks on the coast at Ares near Bordeaux in July, and later spent four days in Bandol, a lively seaside town east of Marseilles, at a cousin's wedding. After Purple-shot Coppers in Ares and Southern White Admirals in Bandol we were hooked!



Purple-shot Copper
Lycaena alciphron
Photo: Guy Meredith

In 2000 we spent a week in the Dordogne near Gramat, a beautifully unspoilt area, although a new major north-south motorway may change all that. The undoubted highlight was the abundance of Scarce Swallowtails, which belie their name because (in our experience) they are much commoner than so-called "ordinary" Swallowtails; there were some lavender bushes about ten metres from the front door of our cottage which acted as a magnet for them, and on one occasion we counted

twelve “podalirius” on one bush. Having fallen in love with Bandol, we drove from Gramat to Bandol, a journey that looked easy on the map but in fact took seven hours. The countryside inland from Bandol was superb butterfly territory, especially for blues, the highlights of which were Long-tailed, Short-tailed, Langs Short-tailed, and a recent import from South Africa, the Geranium Bronze, which was introduced on imported pelargoniums in the late 1980s and has since established itself to the point where it is now considered a pest. There are a number of blues which are very similar to the Common Blue, but are quite characteristically different, including Chapmans, Eros, Eschers, and Turquoise Blues, which are not uncommon. In England, it's either a Common (or maybe Adonis) Blue, but in the south of France, it's necessary to take a closer look.

In 2001 we expanded to two holidays, in late May near Bergerac, where my cousin had bought a ramshackle farmhouse, and then three weeks in July principally in Provence, the highlight of which was seeing Large Blues for the first time, and in quite good numbers. Another surprising observation about France is that Fritillaries are common or maybe we have just become conditioned in England to accepting them as rarities.

In Bergerac we found Mazarine Blues and Sooty Coppers to be quite common and spent much time in meadows where Heath, Knapweed, Marsh and Glanville Fritillaries abounded. As it is only two hours to the Pyrenees by car, we spent several days in the midi-Pyrenees, although the weather was not the best. However, we did get to realise that the weather is very localised in the mountains and that if the weather is bad in one area, just drive a few kilometres to the next mountain valley where it can be completely different.

In July, our butterfly trips had become more adventurous (obsessive, says my wife) and we spent time in the Queyras national park, a largely untamed wilderness with very few roads. The weather was not very accommodating, but we did see our first Apollo and Black-veined White, perching precariously on a cliff edge to get a shot. Little did we know that next year we would see them in their hundreds, without the need to risk life and limb for a photo. However, we did see our first Damon Blue, with it's characteristic white streak on the hindwing underside.

We also spent several days in the Vercors National Park, southwest of

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Grenoble. This is a beautiful unspoilt area on the edge of the Alps, rich in varied butterfly life. We saw many Apollos, Titanias Fritillaries, False Heath Fritillaries (why should they be “false?”), Scarce Coppers, the elusive Alcon Bue, and one Almond-eyed Ringlet.

This year we repeated the pattern of 2001, with two weeks in Bergerac and the Pyrenees, centred in Axe-les-Thermes, although there was almost constant cloud cover, it did lift briefly to reveal a chequered skipper. Three weeks in July in the Vercors, Alpes Maritime, Bandol (again!), and the Auvergne did yield twenty previously-unseen species including a Nettle-tree Butterfly, which was reeling from losing a head-on collision with a passing car, and several Meleagers Blues unmistakable with their scalloped hindwings. This is really the delight of butterfly-watching in France - there is always something new to see. Who knows what 2003 will bring.



Meleager's Blue
Meliageria daphnis

Hertfordshire Biological Records Centre – a Request for Help, by Liz Goodyear

The Hertfordshire Biological Records Centre, or HBRC for short is based at County Hall in Hertford and is the focal point for all the county's biological records. Hertfordshire County Council, the majority of the county's District and Borough Councils and English Nature, fund the HBRC.

The vast HBRC database, some computerised, some historical, gives

information on habitats, species and sites across the county. Using this information the HBRC in conjunction with the Herts & Middx Wildlife Trust can identify important areas, which can then be designated Wildlife Sites. There are currently over 5000 sites in the county and although they do not have any legal protection all landowners are kept informed and given management advice. The HBRC are very keen to encourage the recording of all species and regularly help sponsor training initiatives and hold a twice yearly Recorders Forum meeting.

At present, the HBRC do not have any of our computerised butterfly records. As a committee we all agreed that this needs to be rectified but the incompatibility of the two recording systems makes this an awesome task. However, in the interim period all our important butterfly species records have been given to the HBRC.

In addition to holding all the records, the HBRC has an ecological advisory service. This service provides advice to the County Council and local councils on planning applications and other forms of development as well as habitat management. When the HBRC receive a planning application they have only 3 weeks to handle the application. The HBRC can not visit every site, so they have to rely on the information they already have. But even if HBRC had ALL our records, it still does not mean that if a site flagged up, showed no butterfly records, no butterflies were there. It probably means no one recording butterflies has ever visited that site, which is quite possible if the land is private with no rights of way. This was a situation that the Conservation Committee felt needed rectifying and we as a Branch could really help.

What is envisaged is what we called “A RAPID RESPONSE UNIT or TEAM” – several volunteer Branch members, who could at relatively short notice, make a visit to an application site. Maybe it’s a brown field site in the centre of a town, or a private wood. HBRC would make access possible and in some cases the applicant may be asked to fund the survey.

Some of you may be saying, you need a whole season to do a proper survey or what happens in winter when no butterflies are flying. We understand this - what we want to know then, is does this site have potential? Many of you know that feeling when you see a site and think this could be good. It may be to make it easier, we compile a

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checklist for a site, for instance a private wood - does it have honeysuckle, willow, wide rides, or plenty of nectar sources and food plants. It might be that we add additional site factors that could help other recording groups, like hazel for dormice, ponds for dragonflies, all these could be tapped into this visit. We however, do not want to discourage anyone from volunteering by making it feel that we only want experts – the experts can always be called in if help is needed.

An example to illustrate the importance of this happened to me. I visited a quarry site, close to the Grizzled Skipper colonies at Waterford this June. I found good areas of Wild Strawberry (it was too late for the Grizzled Skipper) and saw amazingly large numbers of Common Blue on the side near to the Waterford Pits. Knowing that this area could become part of the latest County Gravel Extraction Plans I contacted Liz Anderson (our Butterfly liaison officer) at the HBRC. She was immediately able to find out that a Woodland Grant scheme was in place and the owners intended to plant trees on this exact area. With my information, although they could not get the tree planting stopped (it was part of the original planning permission) they were able to get the Forestry Commission to alter the plans and get the trees planted in a less damaging site location. I felt I had done something really positive.



So please if you think you can help, contact me Liz Goodyear by email, phone or letter. I will be the HBRC contact and liaise with them when an application comes in. For more information on the HBRC visit their website at: <http://enquire.hertsc.gov.uk/hbrc/>

Small Copper Update by Gavin Vicary

I would like to thank all the members who sent me records for Small Copper this year. I have received records from Robert Callf, Brian Jessop, M. Jones and Stuart Pittman.

Numbers throughout the majority of the year appear to have been fairly low once again. However on my own transect approximately half of the total records for the season came in the final two weeks. This coincided with a prolonged spell of good weather from late August throughout September and reinforces the theory that this butterfly exists in low numbers when conditions are less favourable but will become far more common when conditions suit. It will be interesting to see if this pattern is reflected by other recorders and may give some reason for optimism for the spring brood in 2003.

I think that perhaps the next step with regard to Small Copper may be to identify the best sites for it in Hertfordshire and Middlesex. From the annual report and my own impressions of places that I have visited I consider some of these to be Trent Park, Knebworth Park, Patmore Heath, The Warren, Hunsdon Mead and Fir & Pond Wood. A number of these are Herts & Middx Wildlife Trust reserves and now that they have a "flying flock" of sheep to graze their reserves, I am sure this will benefit the Small Copper's foodplants, common and sheep sorrel, enormously. Certainly at Patmore the sheep are already having a very beneficial impact on scrub and bramble encroachment and I have also been told that the meadow at Fir & Pond Wood is looking in much better shape than for a while.

With regard to last year's report, Robert Callf actually recorded a greater total of Small Coppers than the figure given for maximum number seen. After discussion with John Murray, we would like to clarify that maximum number seen is corrected to a maximum per hour as spelt out on page 14 of last year's annual report and I hope this clears up any confusion.



A Tale of a Caterpillar, by Richard Bigg

Back in the Summer, July or August - I forget which - I found a huge caterpillar in the garden. It was munching the leaves of Arum Lily plants growing in my bog garden. Bright green with four 'eye spots' towards the head end and a hooked spike at the tail, it looked a fearsome beast and indeed would rear up angrily if fingers got anywhere near. About 2½ inches long and ½in. or so thick, it is obviously the larva of a large hawk moth of some sort. No doubt the moth experts will have identified it from my description already.

I transferred him to a glass container with a leaf or two of what he was eating, hoping to see what moth developed. A week or so after his incarceration I was astonished to find one day that he had changed from pea green to almost jet black, though still with prominent eye spots. Whether this is normal, or something to do with his new environment, I don't know. He devoured the Lily leaves at a great rate and I could see a danger of running out of them before he "crystallised", so I tried him with other leaves from the garden. I tried a varied menu all of which were ignored except honeysuckle, which he reluctantly nibbled at. The Lily was undoubtedly his favourite.

We were due to be away on holiday for 10 days in mid-September and I was hoping he would pupate before then, but he didn't, which gave me a problem. This was solved when Alex, a teenager who lives next door, agreed to give him some fresh feed daily. My own daughter, who does not live close enough to do the job, thought this was hilarious. She could envisage Alex telling her friends at school that she was looking after the pet caterpillar of the eccentric old twit who lived next door.

While we were away, Alex had a worrying moment when one day her charge looked rather sick, but it turned out he was only pupating. I guess he is now set to pass the winter in his shell. He still shows his anger if touched by wagging one end sharply - an unsociable character!



Elephant Hawk-moth caterpillars - are these what Richard saw?

Obituary - Marie Brown, by John Murray

We have some very sad news: Marie Brown died in September. She was every county recorder's dream - an accurate, assiduous and painstaking observer, missing only two weeks in the eight years that she operated her garden transect at Smallford. She continued to walk the transect until a few weeks before her death. Her passing is a loss to our butterfly monitoring programme that will be difficult to replace.

Why Monitor Butterflies? Richard Fox, Surveys Manager & Dr. Tom Brereton, Senior Monitoring Ecologist, Butterfly Conservation

Butterfly monitoring is the foundation upon which conservation is built, as it allows us to assess trends, identify priorities and measure the effectiveness of conservation action. It is also one of the areas in which BC's volunteers excel and, therefore, a major strength of the Society. Anyone can help with butterfly monitoring and we need to maintain a thriving community of volunteers to provide vital ongoing information. This article aims to clarify the main monitoring projects undertaken by BC members and explain how the data gathered play an essential role in conservation.

What is monitoring?

By 'monitoring' we mean collecting information that can be used to determine how well butterflies are faring. This might be at the level of an individual colony or site (e.g. using the butterfly transect method) or across counties, regions or countries. Most monitoring carried out by BC members falls into two main activities: walking butterfly transects and general butterfly recording as part of the Butterflies for the New Millennium (BNM) project. Both types of monitoring provide essential, but different, information that enables BC to conserve butterflies effectively. Abundance data from transects and distribution data from BNM recording compliment each other and together provide a much clearer picture of how butterflies are faring than could be gained from either type of monitoring alone.

Butterfly transects

Butterfly transects are the most accurate way to check how butterfly

populations are faring on individual sites. A transect is a walk around a particular area (perhaps a favourite walk near your home) during which all of the butterflies seen are counted. The route remains the same each time and the transect is walked during fine weather every week from April until the end of September. Clearly, this requires commitment from recorders, although transects can be shared by groups of people each walking a certain number of weeks. Some transects are set up to focus on particular rare species. These are quicker to do as only the focus species is recorded and are done for shorter periods of the year (i.e. during the flight period of the species concerned).

The information gained from transect monitoring is immensely useful, especially if the same transect is walked for many years. When data are brought together from a large number of sites, regional and national indices can be generated. The key value of such annual monitoring is that it provides early warnings of species decline, at a time when conservation action can be most effective and before species are lost from whole sites and areas. Transects not only provide accurate assessments of how each species is doing every year, but enable us to investigate many questions about butterfly ecology and how habitat management and the weather affect populations. The BC transect project, which has collated data from over 500 transects involving 2000 volunteer recorders, has already provided important information to the Department of the Environment, Food and Rural Affairs. For example, we now know that the Government's green farming schemes are helping to slow the declines of many butterfly species. Impressed at the quality of BC's monitoring, DEFRA have now extended their funding of this project, specifically to investigate how habitat management affects different butterfly species.

Despite the success of the project so far, more transects are needed, particularly in northern England, Wales and Scotland and in farmland, urban, wetland, upland and coastal habitats. Your butterfly transect records could end up on a Minister's desk and help improve the future of the countryside for butterflies.

Recording butterfly distribution

Butterflies for the New Millennium is BC's project for general butterfly recording. Since 1995, over 1.9 million butterfly sightings have been collected from 10,000 volunteers. As with transect data, butterfly records are important at both the local and national scales.

Recording is essential for local conservation, providing the locations of colonies of scarce and declining species to conservation organisations and planning authorities seeking to protect them. Records can also provide national assessments of how species are faring by comparing current distributions to historical ones.

Data from the first five years of BNM were used to produce *The Millennium Atlas of Butterflies in Britain and Ireland* (Oxford University Press, 2001), but this book is only the start. The distributions of most species are changing rapidly and it is vital that people continue to record butterflies and that more recorders are recruited. You can make a record any time you see a butterfly that you can identify, anywhere in Britain and Ireland. You don't have to be an expert and even recording in your garden, local park or nature reserve can be a big help. Standard recording forms are used to note down any butterflies that you see, together with the date and name and grid reference of the place where they were. Records are returned to Branch co-ordinators. We are currently working toward the production of new national distribution maps based on the survey period 2000-2004. Many areas remain under-recorded and there are undoubtedly many colonies of scarce species still to be discovered - it is not too late to get involved!

Why is monitoring important?

The data generated by BNM recording and transect monitoring of butterflies underpin almost all conservation work and can be used over and over again to benefit butterflies, both at the local scale (e.g. by improving site management) and nationally. The data are used to determine Government policy, to decide planning applications and to influence the activities of major land-owning organisations such as the Ministry of Defence and Forestry Commission. Ultimately, butterfly data collected by members and submitted through BC's Branches determine which species are the focus of conservation action through Biodiversity Action Plans at the national, regional and local levels. Monitoring data are also important in research and have been used to advise the Government and its conservation agencies on the state of Britain's butterflies, agricultural reform and the impacts of climate change. BC has gained an excellent reputation for providing high quality information on butterfly trends, but your help is vital to ensure that we maintain these standards in the future.

How to get involved?

Everyone can contribute and we really do need your help. Whether you are a new recruit or a long-term member, now is the time to get involved with butterfly monitoring (if you aren't already!). You don't need to give up lots of free time and you don't need to be an expert. Contact your Branch Recorder or Organiser to see how you can help or find out more about transect walking and Butterflies for the New Millennium from the BC web site (www.butterfly-conservation.org). We need both distribution records and transect data to conserve our declining butterflies.

Small Tortoiseshells Attacked by Parasites, By John Rowell

Reprinted from The Hampshire & Isle of Wight Butterfly & Moth Report 2001. We thank the editor of the Report and the author, John Rowell, for permission to publish this article.

[*Definitions: Pupa* = the stage in an insect's metamorphosis where the larva sheds its skin as the pupal case forms underneath. *Puparium* = the stage in an insect's metamorphosis where the larva does not shed its skin during pupation - pl. *puparia*. Flies produce puparia.]



Over the past three years, observers have reported a serious decline in the numbers of the Small Tortoiseshell, with several localities reporting no sightings at all. In the *Hampshire and Isle of Wight Butterfly and Moth Report* for the year 2000, Joyce Gifford reported a Peacock

larva that had been parasitized by what was subsequently identified as the Tachnid fly *Sturmia bella* by Dr Mark Shaw's team at the National Museums of Scotland. This particular parasite of Vanessids, although apparently common on the continent, had not previously been recorded in England.

My own observations in 2001 at the Whippingham (I) Fields transect on the Isle of Wight (SZ510935) may assist in understanding why the Small Tortoiseshell in particular has suffered a decline, for although I have noticed a lack of sightings at most other locations, my garden and the surrounding field here at Whippingham have fortunately always supported a reasonable population.

In 2001, the Small Tortoiseshell appeared on 9th April in small numbers but no larvae could be found by the time they finished on 5th June. The early count of 21 adults was average. However, the summer brood, which emerged on 3rd July, was the highest recorded at the site with 43 adult sightings. At the end of July, over 1,000 larvae of varying sizes were on Common Nettle *Urtica dioica* and the first pupa was found in early August. The summer brood continued until 20th August, just as the autumn brood arrived with further sightings of 30 adults up to 13th October. This made the annual total of 94 adults seen the best ever recorded at this site. Interestingly, only an occasional adult was observed at any other neighbouring location.

Larvae initially started leaving the nettles in some numbers to pupate, but as the days passed, others appeared reluctant to do so and many fully-grown larvae simply remained motionless on the nettle leaves. If touched they would wriggle a little, but generally seemed to lack energy. Of those that started their journey, many halted a few feet above the ground without ever reaching a window sill or overhang and simply pupated in situ. Some larvae, once secured, were pupating within hours, whilst others took up to two days to carry out the same procedure. As Blue Tits *Parus caeruleus* began taking the pupae, I removed all that I could find and 20 were attached to a stick overhanging a metal biscuit tin. On 14th August, I was surprised to find a white maggot in the bottom of the tin and a thread of 'silk-like' appearance hanging from the horn of one pupa. The maggot was about one cm in length and three mm in diameter. Within a few hours it darkened in colour and before the end of the day, it had transformed itself into a small light brown puparium. The maggot did not shed its skin as butterfly larvae do and the puparium was about seven mm in

length, three mm in diameter and shaped like a rugby ball that is slightly pointed at one end. The same thing happened the following day to a second butterfly pupa, but on this occasion the maggot emerged via the wing-case. Further maggots continued to emerge at intervals right through to 19th September and although they were all similar in appearance, some were noticeably larger being nine mm in length and four mm in diameter. On 23rd August, tree maggots emerged, one of which was from a butterfly larva which had pupated on 18th August. I had observed this particular Tortoiseshell larva on 16th August when, about four feet from the ground, it had taken half a day to attach itself and a further day and a half before it completed pupation. In this instance the parasitic fly larva took only five days to emerge after its host pupated.

On examining the affected butterfly pupae, no holes were visible as the maggots had not eaten their way out but simply squeezed through the pupal casing either via the horn, wing-case or other weak point, which closed up afterwards. This was different from the parasitized larvae of Large Whites, which I have found in the past, as these showed definite holes eaten through the empty casing when the adult parasitic wasps emerged. On virtually all the Small Tortoiseshell pupae, a white stain was visible running down the outside of the casing from the place where the maggot had emerged, a stain which led to a fine white thread hanging from the lowest part of the pupal casing to within four – six cm of the ground. Presumably, the maggots dropped the last short distance to the floor, having lowered themselves by the threads.

All the maggots emerged at night, presumably as a protection from predators. Once I realised this, pupae were checked more frequently and the time of emergence was found to be just after midnight. If it were not for the evidence of the thread, or the fact that the tin kept the maggots contained, none of this would have been observed, as under natural conditions in the wild, the maggots would have simply dropped to the ground and wriggled to cover.

However, all was not bad news as the first of the autumn brood of Small Tortoiseshells emerged on 20th August, the same day as the last of the larvae departed from the nettle patch. On 24th August, the first of my 'captive' brood which I had collected on 10th August emerged safely. Two more adults emerged safely on 26th August and a fourth on 29th. These were joined by two other fresh butterflies, which had

obviously hatched nearby.

I subsequently observed that the Small Tortoiseshells returned each night to the coach house where they had hatched. One actually hatched after the tin containing the pupa had been moved out into the sunshine on a patio table in the garden. Strangely, one of the seven adults flying in the garden regularly returned to land on that patio table, close to where the tin had been located. As I have also observed that female butterflies appear to lay in the same proximity as previous broods, I wonder if these events are related and that a butterfly has some instinctive attraction to, or memory of, the spot where it hatched.

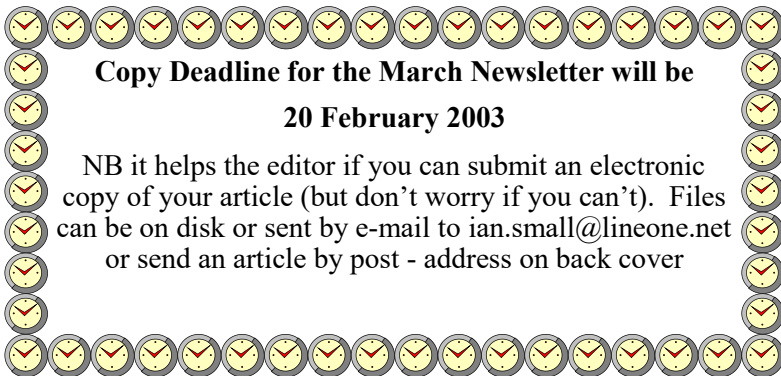
Most of the parasitic puparia were sent to Dr Mark Shaw at the Museums of Scotland for identification. At 0800hrs on 6th September, the first parasitic fly emerged from the puparia that I had retained, biting its way out having taken 17 days to hatch. Another five flies emerged within a few days. These, together with their empty pupal cases and a few live puparia, were also sent to Dr Mark Shaw. The puparia sent to Edinburgh have been identified in about equal numbers as belonging to the common tachnid fly *Phryxe vulgaris* and the new continental species *Sturmia bella*. Both are not unlike the Common House-fly *Musca domestica* in appearance.

However, from two pupae a brood of *Pteromatus puparum* emerged, a tiny parasitic wasp that attacks white butterflies. Dr Shaw writes that the species oviposits into very fresh pupae, and sometimes a female waits patiently on a host larva that is going off to pupate. In this instance, as with the parasitized Large White referred to previously, an exit hole is visible in the casing of the dead pupa. The adult parasitic brood, having pupated gregariously inside the host, chew a hole from which they all emerge. Dr Shaw has also confirmed that Comma pupae have been attacked by *Sturmia bella* on White and Red Admiral pupae by the parasitic wasp *Microgaster subcompletus*.

If the situation is analysed using my observations as an example, 20 Small Tortoiseshell pupae produced only four adult butterflies. 10% were attacked by the parasitic wasp *Pteromalus puparum* and 35% by the tachnid fly *Phryxe vulgaris*, and if these were the only two parasites then eleven adults should have hatched instead of four. However, the Small Tortoiseshells were also attacked by the newcomer *Sturmia bella*, which accounted for a further 35% loss. If Vanessids in Britain are now being attacked by this newcomer, it may explain why

the Small Tortoiseshell has shown such a dramatic drop in numbers.

I am advised that one female parasitic fly is capable of attacking in the region of 150 butterfly larvae and that several generations can occur annually between May and October. It would seem that the addition of another parasite could bring about a larger cyclical variation in the number of butterflies and that we could see similar cyclical declines in the Peacock, Red Admiral and Comma in future years. However, at Whippingham in 2001, a long warm summer has produced the best numbers of Vanessa's for the past four years.



Copy Deadline for the March Newsletter will be

20 February 2003

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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