



Butterfly Conservation

Saving butterflies, moths and their habitats



HERTFORDSHIRE AND MIDDLESEX BRANCH

NEWSLETTER ISSUE **54**

Winter 2008

Western Australia, October 2008

by David Chandler, Branch Chairman

In October 2008 Peter, my son and I went on a holiday to one of the most remote places on Earth. We went to visit my brother and his family who live in Perth, Western Australia. Perth is a city that is about as far away as you can get from other civilisation and it is an oddity in that Singapore is quicker to reach by air than Sydney. Perth is one of the few cities that can clearly be defined by its lights from outer space because there is no other city of size for thousands of miles in any direction.

Even butterflies have found it hard to reach this dusty dry corner of the globe for, amazingly, there are under a hundred species in the Perth hinterland, in fact there are roughly about the same number as we have in the UK. Strangely, at the same latitude in another familiar

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haunt of South Africa, there are thousands. This is quite an oddity because the topography of the Perth area is very similar to Qua-Zulu Natal. This may be climatic as the wet and dry seasons are reversed on the Australian side of the Indian Ocean, but more likely it is due to the remoteness of the area and the difficult terrain across the Australian great red centre that any species would have to traverse.

There are a few global butterfly travellers like The Painted Lady plus The Long-Tailed Blue found in the region and the familiar Small White has made it with a little help from man on cabbages from New Zealand, but mostly, like their marsupial cohorts, the majority of Australian species are globally different than any other.

Away from the Perth area the distances involved in getting to the places of interest were quite large. In the three weeks we stayed in Australia we took a long-trip to Sydney and a road trip down to the southern ocean port of Albany. It is odd to think that Peter and I saw three oceans (Pacific, Indian and Southern) in such a short space of time.

On the road trip south to Albany the weather turned cold and damp as you would expect as its climate is influenced by the great Southern Ocean and consequently we saw few butterflies. One highlight on the return journey was at White Gum Flatts 70km north of Albany where I found the scarce Western Dusky Azure.

One day we visited Rottnest Island (18 miles out to sea into the Indian Ocean) where the strange Quokkas live. These small marsupials, only found on Rottnest, are very tame and allow you to approach them and stroke their small furry heads. On Rottnest I saw a Silver Spotted Skipper (which is unlike the ones we find at home) and the Rottnest Xenica, a unique Satridae to the island. Rottnest is a beautiful unspoilt nature reserve, where you can watch seals, dolphins and see whales migrating from the warm sub-tropical western side, whereas the cold ocean current on the eastern side of the island brings more plankton for the pelicans and terns.

We also had some shorter journeys to places like Yanchep National Park for the stunning wildflowers, particularly orchids, seen in springtime, where I found the scarce Rayed Blue, but paradoxically, the best day for seeing the most number of butterfly species on one day [7] was a visit to Star Swamp, just a mile or so from my brother's house 12 miles north of Perth City. Here were Australian Admirals,



Fringed Blue
Photo © Dave Chandler

Meadow Argus, Fringed Blues, Long-Tailed Blues, Australian Painted Ladies, Twin-Spot Blues and the very familiar friend from my homeland, the Small White.

AGM Reminder - Saturday 24th January, 2009

Full details of the AGM are provided in the separate 'Branch Review, 2008', enclosed with this newsletter. The event is being held at the Blackwell Hall, Uxbridge Road, Harrow Weald, Middx, commencing at 2.30pm.

The 'Branch Review' contains the main officers' reports plus the annual accounts, for discussion at the AGM. If you are attending, you may find it helpful to bring your copy with you.

Spring Meeting – Saturday 14th March 2009

Our second meeting of 2009, will be our Spring Meeting and is intended to be a second chance to socialise during the first months of the year. We want members to come along and meet other members and just have a chat and share their butterfly and moth news. For the Spring Meeting we will be **in St. John's Church Hall, Boxmoor, Hemel Hempstead, HP1 1JY. (Grid Reference: TL051061 [Map . 165]). Time: 2 for 2.30pm - 5.30 pm**

This is the first time we have been to this venue. The sales and plant stand will be present and refreshments will be available.

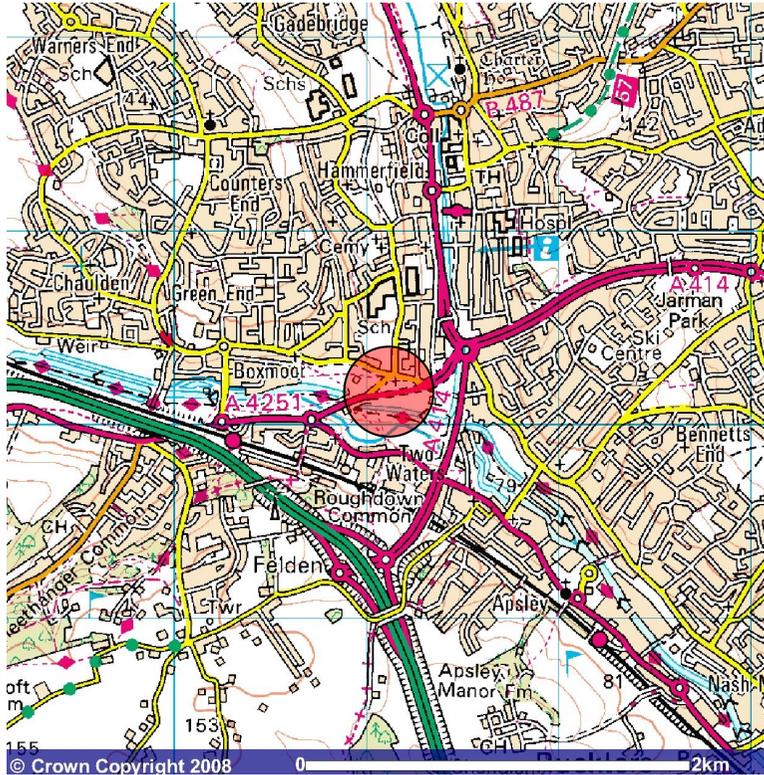
The committee have not agreed the final programme as this newsletter goes to print but full details will be available on the branch website www.hertsmiddx-butterflies.org.uk when confirmed. We look forward to seeing you – non members are very welcome.

St. John's Church Hall, Boxmoor is about ½ mile from Hemel Hempstead Station (London Midland from London Euston). Exit through the main entrance and go in an easterly direction along London Road. Station Road splits from London Road at the first mini roundabout.

Directions if travelling by car:

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From the A41 (Hemel Hempstead exit) follow the signs for Hemel Hempstead until you reach the ‘roundabout with lots of mini roundabouts’ and bear left taking the first exit (A4146 to Bovington). The church and church hall is a short distance along Station Road on the right side. Coming from the direction of the M1/St Albans follow the



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A414 to the ‘roundabout with lots of mini roundabouts’ (the A4146 is the third exit if you take the roundabout in a clockwise direction). On street parking is available on Heath Lane which is on the right just after the church if coming from the Hemel Hempstead direction. There is also additional car parking at the Leisure Centre on St. John's Road. (continue down Heath Lane and turn right – the Leisure Centre is on

the left side).

LETTERS

From Andy Holtham:

In his letter to the Autumn Newsletter Ashley Cox makes three points with which I wholeheartedly agree. First, it is an enormous disappointment that the EU set-aside requirement has been reduced to zero, and that we are faced with the prospect of a further intensification of agriculture, reversing some of the wildlife gains of recent years.

Second, at an individual level, all of us should focus on what we can do locally (rather than what we can't do globally) to protect and enhance the environment and wildlife around us.

Third, a great deal of misleading and ill-informed opinion is published about climate change. Unfortunately this includes the bulk of Ashley Cox's letter. I will not attempt to list or correct the errors in his article - in any case why believe me. If anyone is interested in understanding what is really happening with climate change there are plenty of reliable sources to choose from; The Rough Guide to Climate Change (Robert Henson) is a favourite of mine, or if you want it from the horse's mouth look at the IPCC website (<http://www.ipcc.ch>). (See also the article starting on page 10...editor.)

Sales Update, by Malcolm Hull

Branch members continue to show imagination producing an exciting range of new products. These will be on sale at both of our forthcoming indoor meetings on January 24 and March 14 (for details see page 2) and are also available by mail order.

- Butterflies of Europe DVD by Clive Burrows – 35 mins film of butterflies shot in the field. (A full review is included on the next page) - £12.99

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- Note Cards by Charles Smith – The twelve designs featured in the last newsletter have proved very popular. Charles has now released six new cards featuring butterfly photomontages. Approx card size 15x10 cm plus envelope - 2 cards for £1
 - Large Whites on Nasturtiums (pictured below)



Large Whites on Nasturtiums

- Purple Emperors on a Woodland path
- Adonis Blue on Marjoram
- Chalkhill Blues on Horseshoe Vetch and Pyramidal Orchids
- Orange Tips on Cuckooflowers
- Small Blues on Kidney Vetch

This last card is particularly special, featuring shots of Small Blues from Hexton Chalkpit in Herts – the species is now extinct in this county.

The twelve cards from the first series are all still available – see the sales page of the branch website for details at <http://www.hertsmiddx-butterflies.org.uk/>

Seeds for growing butterfly plants are packed by Alan Downie and Malcolm Newland, our expert butterfly gardeners. These seeds are available to members without charge, although we suggest a donation of 50p per packet. An up to date seed list will be kept on the sales page of the branch website. Seeds currently available include:

Anise Hyssop
Corncockle

Birds Foot Trefoil
Devil's Bit Scabious

Field Scabious
Globe Thistle
Helichrysum
Honesty
Lavender – Dwarf Munstead Blue
Lychnis Coronaria
Red Valerian - White
Sedum/Ice Plant
Verbena Bonariensis

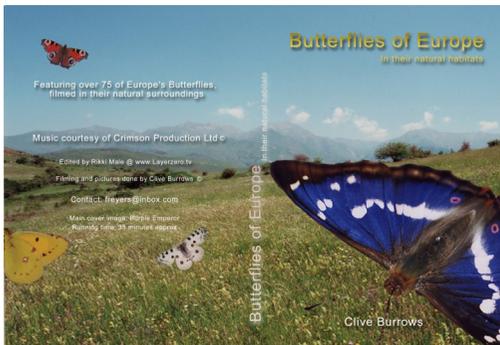
Fleabane
Greater Knapweed
Hemp Agrimony
Lavender – Hidcote
Lesser Knapweed
Red Valerian - Mixed
Red Valerian - Pink
Teasel

A full list of mail order items is available on the sales page of the branch website. All profits go directly to branch funds to support our work conserving the butterflies and moths of Hertfordshire. To order any goods by mail order please contact Malcolm Hull by e-mail, letter or phone – see details on back cover. Please add 10% for postage and packing and send cheques payable to Herts & Middx Butterfly Conservation.

Butterflies of Europe in their Natural Habitats - a review of the new DVD by Clive Burrows (35 minutes), by Malcolm Hull

This new DVD features over 75 European butterflies filmed in their natural habitats. The quality of the images are superb, allowing each species to be seen in detail. The footage has all been shot by local butterfly photographer Clive Burrows. The film is professionally

produced, with background music and a detailed species count at the end



Starting with High Brown Fritillary and finishing with Chequered Blue, the images come thick and fast. I was particularly struck by the shots of a Freyer's Purple Emperor taking salts from mud. The orange/

brown insect slowly rotates at an angle to the camera until a purple

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sheen slowly appears and develops into a brilliant deep colour.

Fritillaries, Blues, and other larger butterflies are all well represented, with a smattering of coppers, hairstreaks, browns, whites and the odd skipper. Many butterflies are shown basking, perching or nectaring to provide a clear view of their features. In many shots both upperside and underside are shown, providing a more complete natural introduction to the species than can be obtained from a book. Other behaviours are shown - the Swallowtail flutters, there are blues mating and a curious group of fritillaries perched together on a wall - why?

Other wildlife is not neglected with moths, birds a pack of wolves, a large tortoise and a beetle all putting in an appearance. Local scenery from Europe is also included with some rugged mountains and a spectacular waterfall.

Clive grew up in Abbots Langley, Herts, where he still lives and some of his films are taken in the nearby Hertfordshire countryside. Continental species have been photographed on his travels over the last 12 years in locations such as Greece and Spain

Copies of the DVD are available from December at 12.99 each. It can be ordered by post from the branch (see page 7 for details) and will be on sale at our two indoor meetings

Grazing at Millhoppers Pasture

In his report on our reserve at Millhoppers Pasture, included in the enclosed Branch Review 2008, Jez Perkins the reserve warden describes how beneficial it has been to be able to re-introduce grazing to the site. Shown below are 3 pictures - one 'before', one 'after' and another showing the arrival of the eight Beulah sheep. You can see that his description of a 'fantastic job' is not an understatement.

Before:



The sheep arrive



After

Butterflies Across Europe Face Crisis as Climate Change Looms



The above title was that used by the above two organisations for the press release which was issued on December 11th and which was widely picked up in the media. For those of you who missed it, I reproduce the key information below. Martin Warren, the Chief Executive of Butterfly Conservation, is one of the authors of the report being described, and has provided some additional background information, which is provided following the release.

Press release:

Europe risks losing many of its butterflies as the result of climate change, according to the authors of a new book.

The *Climatic Risk Atlas of European Butterflies* is based on the work of scores of scientists from across Europe. They applied climate change models to data collected by tens of thousands of volunteers.

The authors say that some climate change is now inevitable and that the extent of the losses will depend on the degree of that change and how we respond to the new threat. Butterflies have already suffered huge losses across Europe following decades of habitat loss and changing farming and forestry practices.

As temperatures rise, majority of butterfly species will try to head north. This won't always be achievable. The forestry and farming changes mean that areas of suitable habitat are now often small and too far apart for butterflies to travel between them.

The worst-case scenario scientists examined sees the average European temperature rise by 4.1°C by 2080. In that case over 95 per cent of the present land occupied by 70 different butterflies would become too warm for continued survival.

The best case-scenario sees a 2.4°C temperature rise. Even this would mean that half the land occupied by 147 different butterflies would become too warm for them to continue to exist there.

Many butterflies will largely disappear from where they are regularly seen now. The Small Tortoiseshell will become absent from a huge swathe of middle and southern Europe and will become restricted to northern Europe. Under the worst-case scenario, rare species like the Spanish Festoon *Zerynthia rumina* would experience a 97% loss from Spain and Southern France, and the Apollo *Parnassius apollo* would suffer a 76% loss from mountainous areas.

Climate change is already having an impact on butterflies. Over 60 mobile species with widespread food-plants are known to have spread north in Europe over recent decades, including the Comma *Polygonia c-album*, which is spreading north in the UK at 10km per year. Other species have moved further up mountains.

The chief author of *Climatic Atlas of European Butterflies* is Dr Josef Settele from the Helmholtz Centre for Environmental Research (UFZ) in Germany. He said: “The Atlas shows for the first time how the majority of European butterflies might respond to climate change. Most species will have to shift their distribution radically to keep pace with the changes. The way butterflies change will indicate the possible response of many other insects, which collectively comprise over two-thirds of all species.”

Dr Martin Warren, Chairman of Butterfly Conservation Europe and one of the authors, said “Evidence points to an acceleration in climate change after 2050 unless there is a significant decrease in global CO₂ emissions. This accelerated change would be the final nail in the coffin for many European species. We need to be ready for this worst-case scenario. We need place more emphasis on maintaining large, diverse populations on existing habitats while re-connecting habitats to allow species to move across the landscape. This means working closely with farmers and planners.”

Dr Ladislav Miko, Director of Nature Conservation at the EU Environment Directorate in Brussels, said: “We strongly welcome this important study which helps us understand how species might respond to climate change. The evidence points to a radical change in species’ distribution, which we must plan for within future European policies. The results also show the enormous scientific value of records from thousands of volunteers across Europe.”

Some background information from Martin Warren:

The book has been produced by Josef Settele and colleagues at UFZ in

Germany under a large EU funded ALARM project. BC Europe has been involved through its various Board members, some of whom contributed to the text. My involvement was to write a Foreword for BCE, to comment on the text (written by native German speakers) and to re-draft the conclusions and recommendations with the help of Sue Collins.

We had a very useful briefing session with various EU officials who were full of praise for the work. Ladislav Miko (the Director of DG Environment) said that it was amazing how we had used all this data gathered by volunteers across Europe to examine the pressing topic of climate change. The book is open access and is available to read online (see p13). Softbacks will cost 59 euros, hardbacks 89 euros.

A few caveats:.

The book was produced in quite a rush because of UFZ contractual timescales, so it has been a very busy few weeks and the meta-analysis is brief. I have asked for lots more information to understand the results better, but these are only just coming through. Basically the results show that the UK (and many northern countries) will get climate space for many more species and might lose space for only a few species (Northern Brown Argus and Large Heath are expected to be badly affected in the UK). In contrast, southern and middle European countries will lose climate space for many species.

The big question is whether species can travel to the new space. The analysis looks at two scenarios, full or no dispersal. In either case, a large number of species are threatened and will lose climate space (i.e. their ranges will get smaller). If they cannot move many more will be seriously threatened. In the case of the UK, the question is whether they will cross the Channel!! So our conservation message is clear, we need more habitats and better linked habitats to allow maximum movement.

Another big caveat is that the climate models are very crude compared to natural systems. The ones used in the Atlas do not include habitat factors or food-plants. Many butterflies will not be able to move because either their foodplants or habitats will not move. Unfortunately we do not have good information on most of this so the analysis has to be looked at in the round as a first attempt to understand what might happen. Hence the modelling of full or no dispersal.

The Atlas should therefore not be taken as an exact prediction of how each species will respond as each has its own circumstances which may not be factored in. We know that many species live in very tight micro-climates and this may radically affect their chances of adaptation and survival. However, the truth for most species will probably lie somewhere between the full and no dispersal.

The predictions are more difficult to use at the UK level because many species have local races adapted to local conditions. Hence the Heath Fritillary model shows the UK as unsuitable but yet it survives because it uses an incredibly specialised and warm niche.

Also note that a large number of species (c 140) could not be modelled because their range is too restricted for the models to work. They could be the most threatened by climate change.

The book will give us much food for thought as to how we develop our own conservation policies, but at least we have taken the first step as recommended by Chris Thomas to take a European view. I have a Powerpoint presentation that I will give at the next Conservation Committee meeting to kick off a discussion. The results will feed into our own Climate change document that we decided to produce at the Planning week-end. This document is a start at taking more of a lead on this crucial subject.

Some additional notes:

The Climatic Risk Atlas of European Butterflies is published by Pensoft and can be viewed online at www.pensoftonline.net/biorisk . It was written by researchers from across Europe under the EU Sixth Framework programme projects: ALARM (Assessing Large-scale Environmental Risks for biodiversity with tested Methods) www.alarmproject.net and MACIS (Minimisation of and Adaptation to Climate change Impacts on biodiversity) www.macis-project.net

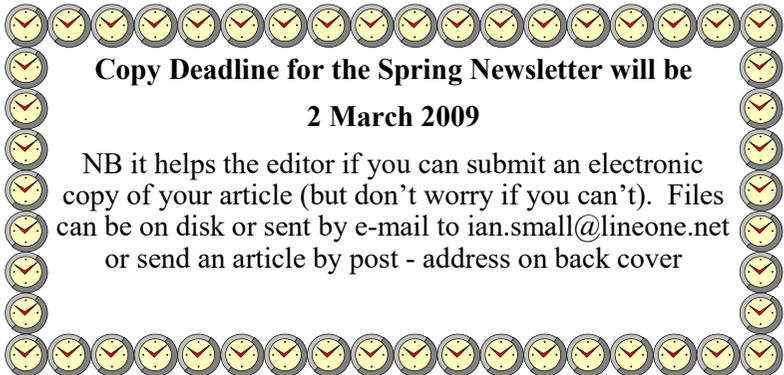
The research work was co-ordinated by Josef Settele of the Helmholtz Centre for Environmental Research (UFZ) in Germany and based on the distribution maps produced by Otakar Kudrna in his Mapping European Butterflies (MEB) project.

The distribution of most species of European butterfly is limited by climatic factors as well as the distribution of their habitats. The atlas uses mathematical models to fit climatic parameters to the current distribution of each species and predict their future climate space

under three scenarios of future climate change: SEDG (Sustainable Europe Development Goal), best case scenario; BAMBU (Business As Might Be Usual), intermediate scenario; and GRAS (GRowth Applied Strategy), worst case scenario.

Butterflies are declining rapidly in Europe, and research has shown that they are declining faster than other well known groups such as birds and plants. In the UK, over three-quarters of all resident species are declining and over half are classed as threatened. The biggest causes of declines have been massive loss and fragmentation of breeding habitats, combined with abandonment and changing habitat management.

The Climate Atlas of European Breeding Birds was published earlier in the year and also showed that widespread shifts in bird distributions are likely due to climate change.



Copy Deadline for the Spring Newsletter will be

2 March 2009

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. Contact Jez Perkins on 07967 832627 for details of planned work parties

Therfield Heath, TL 335400 First Sunday of each month from 10.00 a.m. - 1 p.m. Contact Paul Palmer, Clerk to the Conservators, on (01462) 675232

Ashwell Quarry Nature Reserve TL 252396 for the entrance off Hinxworth Road. Work parties on the third Sunday of each month starting at 10am. Contact Chris James on (01462) 742684

Hertford Heath TL 354111. For details ring Anthony Oliver on (01992) 583404.

Fryent Country Park - details from Barn Hill Conservation Group on 020 8206 0492, www.bhcg.ik.com

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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