

# **Lepidoptera Conservation Bulletin**

incorporating

The National Moth Conservation Project

**Number 1**

April 1999 - March 2000

Compiled by

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# Lepidoptera Conservation Bulletin

## Number 1: April 1999 - March 2000

### Introduction

This Bulletin is the successor to *News Bulletin 10* from the *National Moth Conservation Project*. As this is a bulletin covering the conservation of Lepidoptera, it contains articles covering both moths (including micro-moths) and butterflies. These articles have been contributed by a range of individuals involved with Lepidoptera conservation in the UK. Conservation Updates from *Butterfly Conservation News* have been published already and are appended for the many recipients of this bulletin who will not have seen these.

As with previous bulletins, the aim is not to create another entomological journal. Much of its content is, or will be, published or reported in more detail elsewhere. We especially intend it to help keep track of the technically unpublished project reports (so-called grey literature). These reports are often produced as very few copies, yet they contain the most detailed accounts of work available. They are outside the scope of Abstracting Indexes and easily overlooked after a few years have elapsed. They can be remarkably difficult to locate without prior knowledge of their existence. The bibliography of publications, unpublished reports and other references included in previous bulletins has been expanded to include a wide range of relevant items.

The mailing list has been expanded. In addition to the County Moth Recorders, Butterfly Conservation (BC) Branch Moth Officers and other members of the National Moth Recording Network, the mailing list will now include the area reps of the Amateur Entomologists' Society, the BC Branch Conservation Officers, representatives of the partner organisations and all contributors.

This bulletin will be issued once per year and the aim is to have it ready for distribution by the end of April, as previously.

### The Action for Threatened Moths Project

1999 started with a substantial injection of additional funding into the conservation of Lepidoptera. Most of this is Government funding from English Nature (EN) and is a direct consequence of the UK Biodiversity Action Plan (UK BAP) process. Among other things, the funding, which at present is for three years, will enable a start to be made in implementing the many moth action plans written and published in the last few years. Our success in making a case for special conservation measures for over 50 species of moths was largely a result of having collected and marshalled so much data for the *National Scarce Moth Recording Scheme*. We can all be congratulated that so many species will be receiving practical attention. Others, including further micro-moths, may possibly be added in due course.

Contributory funding from EN has enabled BC to employ two Moth Conservation Officers (MP and DG) from May 1999 while retaining PW as Moth Conservation Advisor. The main job of the moth officers is to oversee the implementation of the national BAP action plans, for the majority of which BC is Lead Partner. This work will be carried out under the *Action for Threatened Moths Project*. For the action plans to be implemented, a wide range of other organisations or partners, such as the Forestry Commission and the National Trust, need to work together to achieve the common goals set out.

During the year projects were launched as part of the UK BAP initiative. EN has funded investigations into the larval requirements of the UK BAP Priority moths the **Double Line** *Mythimna turca* (in Cornwall), the **Silky Wave** *Idaea dilutaria* (in the Avon Gorge) and the **Straw Belle** *Aspitates gilvaria* (in Surrey). The results will be summarised in future bulletins.

The work will complement on-going and new projects on the eight moth species currently protected under Schedule 5 of the Wildlife & Countryside Act.

BC is in the process of producing Regional Action Plans (RAP) which are in addition to the national plans. The RAPs include many Red Data Book and Nationally Scarce species for which special conservation measures are needed but are not currently covered by the UK BAP.

## **The Macro-moth and Micro-moth Reviews**

There is also good news on the long-delayed publication of the *Review of Nationally Scarce and Threatened Macro-moths of Great Britain* (formerly referred to as “the Atlas”) compiled by PW. Deborah Procter is currently editing this Review, with the intention of publication in 2000. It will incorporate information received up to the end of 1996 and will include a map for each of the approximately 200 species. It will be issued as a book and via the Joint Nature Conservation Committee (JNCC) website. The third part of the *Review of Nationally Scarce and Threatened Micro-moths of Great Britain* is currently being edited, again with publication planned for this year.

## **The National Scarce Moth Recording Scheme**

The operational base and first point of contact for this scheme has been moved to the BC Conservation Office in Dorset where there is greater administrative back-up. PW will continue to be associated with and provide advice for the Network. DG is being employed part-time on this project, to handle correspondence and enquiries, help service the network, keep the address list up-dated and to organise data entry. Increasingly, we hope data can be received in electronic formats, both from recorders and the authors of reports. In these ways we hope to clear all data backlogs and improve the flow of new information both from and back to recorders. E-mail and the Internet offer possibilities for this which did not exist a few years ago and we intend to exploit these to the full.

We continue to await the launch of RECORDER 2000 and hope to be able to help County Recorders in using it. Even so, we are now in a position to begin actively trawling data from County Recorders annually. For some counties there are several years accumulated data to collect. We would like to thank all the recorders who have continued to send data without prompting and everyone for their patience during what has been a difficult couple of years. Particular thanks are due to volunteers Tim Norriss and Ian Thirlwell (both of Hampshire & Isle of Wight Branch of BC) for their invaluable help in data entry and in trialing systems for electronic data exchange.

Finally, we would like to reiterate our thanks to all of you for your support with the various projects over the years - what has been achieved would not have been possible without your input. Please do whatever you can to raise the profile of the UK BAP Priority Species, including field meetings to search for or monitor them. If you have any meetings you would like included in the field meetings programme of the British Entomological and Natural History Society (BENHS) for 2001, contact PW as Field Meetings Secretary (at 1366 Lincoln Road, Werrington, Peterborough PE4 6LS). If you wish to discuss projects or require advice, please contact MP or DG (moths) or NB (butterflies) in the first instance. We hope you have an enjoyable and productive field season.

Paul Waring, Mark Parsons and Nigel Bourn

## **Acknowledgements**

We are extremely grateful to the Joint Nature Conservation Committee (JNCC) whose financial support has contributed both to the maintenance of the *National Scarce Moth Recording Scheme* and to the production of this Bulletin. Mark Parsons' and David Green's involvement was also made possible through English Nature's (EN) support of the *Action for Threatened Moths Project* and Nigel Bourn's through the *Action for Butterflies Project* jointly funded by the three country agencies and World Wildlife Fund (WWF). Butterfly Conservation (BC) are particularly grateful to Ian McLean (JNCC) and David Sheppard (EN) for their general interest and support for this work.

Individual contributors are named in the text but we would like to express our particular thanks to the following; Paul Butter, David Brown, James Cadbury, Ernie Donaldson, Steve Doyle, Maurice Edmonds, Ruth Feber, Andrew Foster, Adrian Fowles, Chris Gibson, Neil Gregory, Russel Hobson, Mike Howe, Paul Kirkland, Frank Lowe, David Phillips, John Phillips, Tony Rouse, Robert Smith, Roger Sutton, Mark Tunmore and Martin Warren.

We would also like to thank the BC Branch Moth and Conservation Officers, County Recorders and co-ordinators of local moth and butterfly groups for their tireless efforts for the conservation of Britain's moths and butterflies.



## The Bulletin

This issue is divided into two parts. The first part provides an overview of information related to the moth and butterfly networks and Lepidoptera conservation in the UK, particularly emphasising species covered by the UK Biodiversity Action Plan (BAP) and those covered by the Wildlife & Countryside Act. The second part of this bulletin is the Conservation Updates published in the last edition of *Butterfly Conservation News*. It is intended that future copies of this bulletin will include a compilation of these from the previous year.

## Reports from the Agencies and NGOs

### **Countryside Council for Wales (CCW): Research and survey on moths and butterflies in 1999 - Adrian Fowles (Senior Invertebrate Ecologist) and Mike Howe (Invertebrate Ecologist)**

Searches for adults and larvae of the **Netted Carpet** *Eustroma reticulatum* near Dolgellau, Merionethshire, continued in 1999 but failed to locate the moth despite healthy populations of the foodplant, Yellow Balsam *Impatiens noli-tangere*. We may have to conclude that it has become extinct in Wales. Numbers of adults of the **Belted Beauty** *Lycia zonaria britannica* in 1999 at its only Welsh locality were higher than in recent years. However, the habitat occupied by the moth is vulnerable to mismanagement and other insidious pressures and constant liaison with the owners is required. CCW continued to monitor populations of the **Rosy Marsh Moth** *Eugraphe subrosea* and **Welsh Clearwing** *Synanthedon scoliaeformis* and surveys were undertaken of the **Silky Wave** *Idaea dilutaria* populations in north and south Wales.

The **Marsh Fritillary** *Euphydryas aurinia* was the focus of numerous surveys and several strong populations were discovered. Despite this positive news the Marsh Fritillary continues to be in a vulnerable position in Wales, with the majority of populations being classified as small and threatened by changes in land use. CCW and BC continued efforts to safeguard some of the remaining populations of the **Pearl-bordered Fritillary** *Boloria euphrosyne* in Wales by reviewing current management practices at key sites in south Cardiganshire and Denbighshire and promoting more sympathetic practices. The removal of scrub and dense bracken has already commenced at sites under National Trust ownership, with the long-term aim of introducing grazing stock to maintain a more open habitat structure. Annual monitoring of the handful of Welsh sites for the **High Brown Fritillary** *Argynnis adippe* confirmed another poor year for adults and its status in Wales remains precarious. In south Pembrokeshire on the Ministry of Defence Castlemartin Range, surveys revealed **Silver-studded Blues** *Plebejus argus* to be widely distributed along the cliff-top grasslands and within the dune systems of this magnificent area of coast.

### **A selection of the work on Lepidoptera by Scottish Natural Heritage (SNH) in 1999 - David Phillips (Invertebrate Ecologist, SNH)**

Survey and monitoring:

The population of the **New Forest Burnet** *Zygaena viciae argyllensis* was monitored as in former years. There are some signs of recovery in numbers from their very low level in 1996. All the known sites for the **Chequered Skipper** *Carterocephalus palaemon* were surveyed in 1999 for SNH. This assessed the current condition and extent of suitable habitat. Due to bad weather only low numbers of adults were recorded but at most sites at least a few were seen. The maps of the habitat will form the basis for future monitoring and for action on the UK BAP. Each of the known sites for the **Netted Mountain Moth** *Macaria carbonaria* was surveyed in 1999. Due to poor weather few were recorded. Other areas of apparently suitable habitat were also surveyed. A similar survey was undertaken for **Dark-bordered Beauty** *Epione vespertaria* in 1998.

Other work:

- Attempts are being made to anticipate Woodland Grant Schemes that conflict with invertebrate sites in Scotland. This has already involved action for the **Kentish Glory** *Endromis versicolora*.
- We are trying to collate information on the areas that people have searched for the New Forest Burnet. If any of you can contribute to this, it would be much appreciated.
- Site casework has involved sites with species such as the micro-moth *Parornix alpicola*.
- Species dossiers have been compiled on each of the UK BAP Priority Lepidoptera and on each of the threatened (RDB1 & RDB2) species. These will be tidied up and circulated for comment before they are distributed to SNH Area Staff.

### **Joint Nature Conservation Committee (JNCC) and moth conservation – Ian McLean (Head of Species Advice, JNCC)**

JNCC has been pleased to contribute funding to the co-ordination of the network of recorders who annually collect data on threatened and scarce macro-moths. This vital work is essential for assessing the status and conservation needs of these moths, particularly where there have been recent declines. JNCC is keen to work with BC and others in developing the network of recorders to improve surveillance of threatened moths and to report the findings regularly. There is considerable potential to make better conservation use of the data collected by many moth recorders, as well as to add macro-moths to those groups of wildlife already regarded as sensitive indicators of environmental changes.

Deborah Procter is currently editing the *Review of Nationally Scarce and Threatened Macro-moths of Great Britain* compiled by PW, with the intention of publication in 2000. It will incorporate information received up to the end of 1996 and will include a map for each of the approximately 200 species. This Review will be made available within a new series, *Species Status*, and it will be issued as a book and via the JNCC website. The third part of the *Review of Nationally Scarce and Threatened Micro-moths of Great Britain* is currently being edited, again with publication planned for this year. The JNCC Species Status project, led by botanist Nick Hodgetts, will co-ordinate future Reviews and revisions of the conservation status of species. These Reviews will all adopt the revised IUCN (1994) Red Data Book criteria and categories, in line with the most recent British Red Data Books on lichens and vascular plants.

Ian McLean on E-mail: [McLean\\_I@jncc.gov.uk](mailto:McLean_I@jncc.gov.uk)  
JNCC website: [www.jncc.gov.uk](http://www.jncc.gov.uk)

### **Moths on National Trust (NT) land - Andrew Foster (Invertebrate Ecologist, National Trust)**

Over the past few years, a database of moth records on NT properties has been compiled by Howard Vincent, a volunteer at our Cirencester office. This has been a major undertaking that has involved extracting data from over a thousand of our own Biological Survey Reports and the accompanying property files - NT properties cover over 240,000ha in England, Wales and Northern Ireland, most of which have been surveyed at some time over the past 20 years by the Biological Survey Team. Although we rarely conduct detailed moth surveys ourselves, readily available data on all groups (including moths) are collated and incorporated when the survey reports are compiled.

This first trawl for data has amassed over 25,000 records (stored on the RECORDER database) for just over 800 species of macro-moths and pyralids. Coverage of the micro-moths is much less extensive. These include nearly 2000 records of scarce species: 216 (70%) of the 309 species listed as Red Data Book (RDB) or Nationally Scarce, and 35 (66%) of the 53 UK BAP Priority Species. Of course, the database is not comprehensive and is an on-going project - undoubtedly there are many records lying undetected amongst our own regional files and literature which are yet to be collated. This represents an important first step in appreciating the significance of NT properties for moth conservation (within and outside of NT), and forms a basis from which to develop priorities for moth conservation within the NT further.

Well known examples of species for which the NT have a particular responsibility are the **Netted Carpet** *Eustroma reticulatum* (NT is joint Lead Partner with BC under the UK BAP) and the Cornish subsp. of the **Sandhill Rustic** *Luperina nickerlii leechi* at its only known world locality. There are numerous other examples where significant, or some cases the main, UK populations of scarce species occur on NT land. Among them: **Straw Belle** *Aspitates gilvaria* on the North Downs; **Ashworth's Rustic** *Xestia ashworthii* in the mountains of north Wales; and the **Scarce Blackneck** *Lygephila cracca* - just one of a number of species restricted to the coasts of the south west.

It is hoped that during the coming year some specific surveys for particularly scarce or threatened species will be undertaken on NT properties. For example, the Biological Survey Team will be based in the Chilterns for much of the summer where a special look out will be kept for larvae of the **Striped Lychnis** *Shargacucullia lychnitis* - already known from certain properties, it is hoped to locate further populations on NT land.

The database is being continually updated, so to improve our knowledge even further any moth records for NT properties which have not already been passed on would be very welcome - we do rely very heavily on enthusiasts supplying records from our properties. Please contact: Andy Foster, Invertebrate Ecologist, Biological Survey Team, The National Trust, 33 Sheep Street, Cirencester, Gloucestershire GL7 1RQ

### **Important moth habitats at RSPB nature reserves, and there is promise of many more discoveries - James Cadbury (Senior Ecologist, RSPB)**

RSPB nature reserves extend over 108,322ha and include a wide variety of habitats, including such scarce semi-natural ones as Caledonian pine forest, areas of southern heathland and the largest coastal shingle structure in Europe at Dungeness, Kent. Though the RSPB acquires its reserves primarily for bird conservation, their importance for other biodiversity is increasingly recognised. The Biodiversity Monitoring Programme, a scheme to record and monitor species of greatest conservation importance was established on RSPB reserves in 1996.

Macro-moths have been reasonably well recorded at RSPB reserves; 32 are RDB species and another 55 are Nationally Notable. Twenty species are listed as UK BAP Priority Species.

Among the 153 RSPB reserves are some key sites for moths, including Arne, Grange and Stoborough Heaths, Dorset, which supports a rich assemblage of southern heathland species. Dungeness is a stronghold for such species as the **White Spot** *Hadena albimacula*, **Pigmy Footman** *Eilema pygmaeola* and **Toadflax Brocade** *Calophasia lunula*.

There are large reedbeds at a number of lowland reserves, particularly in East Anglia where Minsmere, Suffolk, and Mid-Yare, Norfolk, are good examples. The habitat supports many of the wainscot moths, including both the **Fenn's Wainscot** *Chortodes brevilinea* and **White-mantled Wainscot** *Archanara neurica* which have a restricted European distribution. Some of the saltmarsh species occur on reserves on the coast of East Anglia and north Kent. These include the **Ground Lackey** *Malacosoma castrensis*, the larval tents of which are monitored at three reserves. At one reserve 1,339 tents were counted in 1998. The presence of the **Scarce Pug** *Eupithecia extensaria* was confirmed by finding larvae at a Norfolk reserve. Ramsey Island, Pembrokeshire, is home to some scarce moths associated with the rocky western coasts of south-west England and west Wales, such as the **Devonshire Wainscot** *Mythimna putrescens* and the **Black-banded** *Polymixis xanthomista*.

RSPB reserves include a range of woodland types that provide promising habitat for moths. Those in East Anglia have produced such species as the **Triangle** *Heterogenea asella* and **Shaded Fan-foot** *Herminia tarsicrinalis* in recent years. **Ashworth's Rustic** *Xestia ashworthii* has been appearing regularly in small numbers in the western oakwoods at Mawddach Valley, Gwynedd. The 12,876ha Abernethy Forest reserve, Inverness-shire, extends from the River Spey to the top of Ben Macdui (1311m) and includes an extensive area of Caledonian pine forest. **Kentish Glory** *Endromis*

*versicolora*, **Cousin German** *Paradiarsia sobrina*, **Rannoch Brindled Beauty** *Lycia lapponaria* and **Small Dark Yellow Underwing** *Anarta cordigera* are amongst the species recorded here.

Among the UK BAP Priority Moths there are several species for which confirmation of their continued existence at reserves is needed: the **Speckled Footman** *Coscinia cribraria* and **Dingy Mocha** *Cyclophora pendularia* at Arne, the **Barred Tooth-striped** *Trichopteryx polycommata* at Leighton Moss, Lancashire, the **Sword-grass** *Xylena exsoleta* at Abernethy, the **Clay Fan-foot** *Paracolax tristalis* at Blean Woods, Kent, and the **Common Fan-foot** *Pechipogo strigilata* at Coombes Valley, Staffordshire. There are others which might be expected at reserves, including the **Netted Mountain Moth** *Macaria carbonaria* and **Northern Dart** *Xestia alpicola* at Abernethy.

The RSPB is working with the BC Moth Conservation Officers to co-ordinate efforts to detect, monitor and conserve key moth species on RSPB reserves. At present, collaborative surveying and training events are being planned. There are a number of potentially interesting reserves that have so far received poor cover for moths. Approaches to help in such work are welcomed and should be made to Matthew Shardlow or James Cadbury at the RSPB, The Lodge, Sandy, Bedfordshire SG19 2DL (Tel: 01767 680551; E-mail: matt.shardlow@RSPB.org.uk).

## **Scheduled Species (Species covered by Schedule 5 of the Wildlife and Countryside Act)**

### **Barberry Carpet *Pareulype berberata* (UK BAP Priority Species) – Paul Waring**

As a result of searches between 1997 and 1999 the Barberry Carpet moth has been confirmed to survive in a total of eight localities. Six of these are new discoveries, all in Wiltshire, a county in which the species has not been recorded before. The other two are in Gloucestershire and Dorset. Some of the colonies are precariously small. Two other populations appear to have died out since 1990. One of these, in Suffolk, had been known since the 1860s. The cause of its demise was almost certainly a fire which scorched most of the bushes when the larvae were feeding on them. The other lost colony, in Hampshire, may have been a short-lived one resulting from the release of a gravid female. Two larvae were found there in 1992 but none since, despite annual searches.

Four establishment trials are underway currently, one in Wiltshire, one in Lincolnshire and two in Northamptonshire. One of the latter is on urban plantings of *Berberis thunbergii*. The Wiltshire and Lincolnshire trials began in 1998 and 1999 and both have produced subsequent wild generations of larvae at similar population densities to those found in the native colonies. The other two releases only took place in late 1999. All four trials and all native colonies will be monitored in 2000. Each year other unexplored sites with native Barberry *B. vulgaris* are investigated in an attempt to find surviving colonies of the moth and as potential establishment sites.

The project also involves the growing of new Barberry plants from local cuttings and seeds for planting out to increase the size of surviving stands to support more secure populations of the moth.

The Barberry Carpet project is featured in more detail in *British Wildlife* (11: 175-182). Most of the work is carried out as part of the English Nature (EN) Species Recovery Programme, with PW the co-ordinator and main fieldworker, assisted by a collection of other lepidopterists, plant propagators and by several members of the Federation of Zoological Gardens of Great Britain and Ireland (Zoo Fed.) who help with captive-breeding of the moth for establishment work. The releases involve several hundred larvae at a time.

### **Black-veined *Siona lineata* (UK BAP Priority Species) – Paul Waring**

In 1999, during the EN Species Recovery Project on the Black-veined moth, PW discovered a single adult of this moth on a remote remnant of rough chalk grassland in Kent from which there are no previous records. The moth was seen at the end of its flight period and we are anxiously awaiting the 2000 flight season to see whether or not a colony exists on the site or if it was just a stray from one of

the known sites. In addition to the three surviving long-term native sites, in Kent, we can now report definite colonisation of two more, the second of which was confirmed in 1999. All of these colonies and the condition of the grass swards are being monitored annually, by PW, Bob Russell and Allen Williams, and sympathetic grassland management has been arranged. Work is underway to restore a number of other grassland sites to a suitable condition for the moth, with the help and co-operation of the private owners, the Kentish Stour Countryside Project and the Kent Wildlife Trust. A project is also in progress to investigate the numbers and survival rates of progeny resulting from the release of gravid females onto vacant sites to help in planning establishment methodology.

#### **Essex Emerald *Thetidia smaragdaria maritima* (UK BAP Priority Species) – Paul Waring**

The last three sites in Britain to support the Essex Emerald moth were revisited by PW on 9 September 1999. For two of the sites this is approximately a decade after larvae were last found (by PW for the former Nature Conservancy Council). The aim was to record any changes on the sites and to undertake one last search for any larvae which might be present. Two of the three sites were found to be in a severely overgrazed condition with none of the larval foodplant, Sea Wormwood *Artemisia maritima*, remaining. In the third site, a National Nature Reserve, the former habitat had been mown so short that the foodplant had disappeared. The conclusion is that none of the three sites has any capacity to support the Essex Emerald moth at present. Such overgrazing could easily have eliminated entire colonies of this moth. It is just one of many factors which may have contributed to the decline and suspected extinction of this moth, others including the construction and maintenance of the modern sea walls, saltmarsh fragmentation, reclamation and development, and isolation effects including in-breeding in the remnant populations.

#### **Fiery Clearwing *Pyropteron chrysidiformis* (UK BAP Priority Species) — based on information provided by Tony Rouse (Consultant)**

Since 1996 Tony has been working on the EN Species Recovery Programme for this moth. He has bred the species in captivity since 1995, stock which has been used for a feasibility study for an introduction. Within its known range at its well-known site, new colonies have been found, but others have been lost. Not all potentially suitable land has been searched at this site due to access problems.

Scrub clearance has been undertaken recently in an attempt to create suitable habitat for the moth. Unfortunately, there has been evidence that some potentially suitable host-plants have been removed from this area, although it is thought unlikely that these currently supported any larvae.

Tony plans to continue to survey and monitor this site during 2000 and, in the light of the discovery of a further population well away from this site during 1999, intends to survey former sites for this species.

#### **Fisher's Estuarine Moth *Gortyna borelii lunata* - Chris Gibson (Senior Conservation Officer, English Nature, Colchester)**

1999 saw a flurry of activity in relation to Fisher's Estuarine Moth, largely as a result of the publication of the *Essex Biodiversity Action Plan*, in which both the moth and its foodplant Hog's-fennel *Peucedanum officinale* featured.

Monitoring of the EN/Environment Agency (EA)/Essex Lepidoptera Panel sea wall management experiment has continued for its third year and will continue at least until 2001. It is hoped that this experiment will give an indication of the optimum mowing frequency for the moth and its foodplant so that advice can be produced for the EA to inform their overall sea wall mowing regime.

A survey was undertaken during the summer which provided detailed maps of the foodplant's distribution. This study also gave a count/estimate of the number of large plants revealing a total of more than 63,000 plants, of which 91% were at just two sites. As part of this survey, a sample of each sub-population of the plant was examined for the presence of larval workings. Within-sample estimates of the frequency of occurrence of larval workings ranged from 0 to almost 40%.

Attempts to provide and implement a recovery plan for Fisher's Estuarine Moth are hampered by the relative lack of knowledge about its life history, population ecology and detailed habitat requirements. EN therefore initiated, and part-funded (together with Writtle College, BC local branch, and EA) a PhD studentship to investigate these issues. Zoe Ringwood commenced her studies in September 1999. One of the most exciting findings so far has been the observation of ovipositing females, not as had been widely suggested upon the food plant, but under the leaf-sheaths of Sea Couch-grass *Elytrigia atherica*.

As part of the PhD, work in 2000 is planned to include experimental work on habitat management and condition, and patch colonisation. Further work on detailed life-history will be undertaken, particularly in the field, although taking guidance from the observation of captive stock.

Unexpectedly, we have been involved in issues relating to the legal protection of Fisher's Estuarine Moth under Schedule 5 of the Wildlife & Countryside Act 1981. In early October, we arrived at the site of the sea wall experiment, established in co-operation with the EA, to find a digger dredging the borrowdyke and depositing the spoil within the experimental sections. The culprit? EA. This is a classic example of the risks of inadequate communication and consultation within a large organisation. The outcomes of this raised some important questions, notably the value of protection under Schedule 5. A short note has been prepared for *British Wildlife* about this incident, and also a fully detailed paper for the *Entomologist's Record and Journal of Variation* (**112**: 1-5). Detailed assessment will be undertaken in 2000 of the recovery (or otherwise) of both foodplant and moth in areas affected by the spoil dumping in 1999.

#### **New Forest Burnet *Zygaena viciae argyllensis* (UK BAP Priority Species)**

See entry in the BAP moth summary.

#### **Reddish Buff *Acosmetia caliginosa* (UK BAP Priority Species) – Paul Waring**

The Reddish Buff continues to be recorded annually in good numbers on the various sub-sites of its single locality on the Isle of Wight. It would almost certainly have been lost to scrub encroachment and development if it had not been for the habitat management, public relations and ecological work undertaken as part of the EN Species Recovery Project during the 1990s. Meanwhile, establishment trials are underway on three sites, with several other sites being surveyed and prepared for trials. During 1999 the moth was seen on one of the three establishment sites, for the second year running and three years after the original release, which was of 1412 larvae in 1996. This site is on the Isle of Wight but separated from the native colony by 3km of unsuitable habitat.

At the second establishment site on the island, smaller than the first, 308 larvae were released, on 7 July 1998. An adult moth was recorded on the night of 12 June 1999, but none on the night of 14 June 1999.

The third establishment site is in Hampshire and represents a return of the moth to the mainland, where it had a number of colonies, all in Hampshire, in the nineteenth and early twentieth centuries. The first release at this site took place in May 1994, comprising 42 captive-bred males and 46 females. Two resulting males were trapped on 9 June 1995. This was followed up with a release of 700 larvae in late July 1996, after which 7 males were light-trapped on 31 May 1997, followed by three on 2 June and one on 5 June 1997 and two larvae on 16 July 1997. A male was seen on 1 June 1998, but none was seen in 1999 in spite of 7 visits. This may simply reflect the poor season of 1999, following on from 1998 when catches were also low. However, the management of the site did not meet the objectives in 1999. The condition of the sward was good in 1998 but, because of the wet autumn, the site was not forage-harvested at the end of the season and cattle were put on only very briefly for the same reason. Consequently the sward was too rank over part of the site in 1999. Other parts still appeared suitable, however, so we hope the moth has not been lost. It is worth noting that even on the native site some trap nights are blank or produce only a single moth, though so far the moth has been seen here every year since 1988. The moth is bred in captivity to produce the numbers

necessary for release because the numbers seen in the wild are considered too small to support the removal of more than half a dozen adults or larvae in any year - it is uncommon to see any more than this in a night and females are rarely trapped. The captive-breeding is now largely carried out by members of the Zoo Fed. and by volunteer lepidopterists. Volunteers are also involved in the monitoring and management of some of the sites. PW has co-ordinated the project since its inception and produces an annual report for the EN Species Recovery Programme which funds most of the work.

### **Sussex Emerald *Thalera fimbrialis* – brief summary by Mark Parsons**

David Walker reports that 100 individuals were seen at the Dungeness Bird Observatory, Kent, last year. The first was seen on the 21 June, the last being recorded on the 3 August.

## **Biodiversity Action Plan Moths and Butterflies**

### **Update on UK Biodiversity Action Plan Priority Moths - a summary - Compiled by Mark Parsons and David Green**

The following is a summary of some of the work that has been undertaken by the BC moth officers, PW (part-funded by BC) and others (see below), mostly during the last year, along with data that has been reported to us or has been published, for example in the newsletters of the various moth groups. This section does not cover the UK BAP Priority Species that are also scheduled species, with the exception of the **New Forest Burnet** *Zygaena viciae argyllensis*, as these were discussed in the previous section. This is unlikely to be a complete record for each species as there are undoubtedly data that we are currently unaware of. If you can supply any additional data, such as specific records, results from surveys or from monitoring programmes, we would be pleased to hear from you. We would also like to hear from individuals who would be willing to survey for or/and annually monitor specific populations for many of the following species.

We are grateful to Andy Barker, Steve Barrett, Phil Boggis, Phil Budd, David Burrows, Martin Cade, John Chainey, Steve Church (deceased), Sean Clancy, Julian Clarke, Derek Coleman, Graham Collins, Ray Cook, Gordon Craine, Simon Curson, Peter Davey, Kevin Dupé, Martin Evans, Ian Ferguson, Peter Hall, Mike Hammett, Martin Harvey, Barry Henwood, Mike Howe, Jenny Joy, Roy McCormick, Tim Norriss, Colin Plant, Tony Prichard, Ray Revel, Nick Riddiford, John Shaughnessy, Phil Sterling, Roger Sutton, Julian Thompson, Paul Troake, Mark Tunmore, David Walker and Ken Willmott for supplying data which has been used in this summary. Mark Young, on behalf of the Burnet Study Group, provided the brief summary for the **New Forest Burnet** and the **Slender Scotch Burnet** *Zygaena loti scotica*. PW supplied the summary for the **Bright Wave** *Idaea ochrata*. Our apologies if we have omitted anyone.

We are also grateful to EN for providing a grant that allowed us to cover some volunteer expenses in England. We are hoping to negotiate a similar arrangement for the coming field season.

### **Black-banded *Polymixis xanthomista***

The moth was found on Anglesey during 1999. As a result of this, survey of the north-west coast of Wales is to be encouraged. Mark Tunmore surveyed several sites in Cornwall for this species and trawled several recent records which the scheme was not aware of, resulting in an additional two 10k squares. The moth was recorded on the Isle of Man, including one new site, and at a site in north Devon. *Atropos* (9: 79) reports a record from Skomer Island, Pembrokeshire.

### **Bright Wave *Idaea ochrata***

The Bright Wave now appears to be restricted to a single locality in Britain, at Sandwich Bay in Kent. It has been the subject of an EN Species Recovery Project since 1997, with PW as co-ordinator and main fieldworker. Breeding colonies formerly occurred near Colne Point, Essex, (last seen in 1985) and in the vicinity of Thorpeness, Suffolk (not seen since the 1980s). The reasons for these losses are

presently unknown. Both sites are being compared with the breeding grounds and habitat requirements at Sandwich to look for clues. At the start of the study, even the larval foodplants were unknown, let alone any preferences for particular sward characteristics. Larvae were found in the wild for the first time in 1998, in association with Smooth Tare *Vicia tetrasperma* and other legumes, but can feed on the flowers of many plants (see *British Wildlife*, **9**: 326 & 393-394).

Meanwhile, all four properties at the single remaining British locality, at Sandwich, Kent, were monitored in 1999. The Bright Wave was included in the regular Butterfly Transect Walk on the Sandwich and Pegwell Bay Nature Reserve (by Peter Forrest, Kent Wildlife Trust), and in a daily evening walk over the Royal St George's Golf Course (by Kevin Webb, Sandwich Bay Bird Observatory). The transect route between the New Club House and the Old Club House on Prince's Golf Course was walked by PW on 24 June 1999, for comparison with his previous year's count, on July 1998. Numbers had not declined. The Royal Cinque Ports Golf Course and the impact of the newly-built irrigation reservoir and spoil banks along the coast road were investigated on 24 June 1999 by PW and Ian Ferguson, as was the Sandwich Bay Bird Observatory Nature Reserve (no Bright Wave were seen).

The former breeding site on coastal shingle between Thorpeness and Aldeburgh, and the cliff-tops to the north of Thorpeness, were inspected on 25 June 1999, earlier in the flight period than the previous visit on 13 July 1998. No Bright Wave were seen, as in 1998.

The former breeding grounds and environs at Colne Point, were visited on 5 August 1999 in the company of Reg Arthur and Joe Firmin. Reg recorded the last-known Bright Wave at Colne and Joe had taken several here in earlier years. Habitat resembling that at Sandwich was very limited in extent at Colne. No Bright Wave were seen.

During 1998 and 1999 a number of other coastal sites in Kent and Sussex, with similar habitat to Sandwich have been investigated for undiscovered colonies of the moth and for consideration as potential establishment sites. All have been negative but some, such as the golf courses at Rye and Littlestone look just right.

Meanwhile, in Suffolk, John Nicholls, Tony Prichard and others have been searching potential sites for the last four years but have failed to find the moth in the county.

### **Buttoned Snout *Hypona rostralis***

Although no systematic work has been undertaken for this moth during 1999, the larvae were again found in the London suburbs. Surrey Wildlife Trust has supplied a list of sites supporting Hop *Humulus lupulus*. Anyone wishing to survey these sites for the moth, or a proportion of them can obtain the list from MP or DG. The moth was also recorded in Suffolk (*Newsletter No. 18* of the Suffolk Moth Group), at three sites in Essex (*Newsletter No. 13* of the Essex Moth Group), Monmouthshire (a single example) and Cambridgeshire. During National Moth Night, the species was recorded in Norfolk (*Atropos*, **9**: 46).

### **Chalk Carpet *Scotopteryx bipunctaria***

To date we have received the following records of this local moth for 1999: Over 20 examples were recorded at light at a known site on a joint British Entomological & Natural History Society (BENHS)/BC meeting held in Oxfordshire. Several adults were seen in Glamorgan (*Newsletter No. 36* of the Glamorgan Moth Recording Group), a county with very few records of this species. The species was recorded at more than one locality in Dorset, it was also seen in Derbyshire (many at one site), East Sussex, the Isle of Wight and Surrey. The moth was reported on National Moth Night in Buckinghamshire (*Atropos*, **9**: 40).



### **Dark Crimson Underwing *Catocala sponsa***

Survey work during last year concentrated on attempts to establish the species' true distribution within the New Forest, Hampshire, so that appropriate conservation measures can be incorporated in to the Special Area for Conservation Management Plan that is being prepared by the Forestry Commission (FC). This work has confirmed the moths' presence in a number of known strongholds and has also resulted in the discovery of a few additional localities, including one previously unrecorded 10k square. On several occasions, the adult moths were seen flying in daylight, at least two hours before the onset of darkness, investigating sap-runs and sugar patches. At one locality five were watched flying together.

### **Dingy Mocha *Cyclophora pendularia***

After some considerable searching larvae were found at two sites in Dorset, one of which is thought to be a new site. A site meeting was held between Robert Brunt (Dorset Wildlife Trust), MP and Phil Sterling (County Ecologist, Dorset) to discuss management of these sites. The species is also known to have been recorded from a third Dorset site during the year. Further survey work is planned in 2000 and the FC have kindly supplied distribution maps of the New Forest's mire system which will hopefully serve as a baseline for survey of that area.

### **Double Line *Mythimna turca***

This species was seen in some numbers on a National Nature Reserve in Cornwall. This would have been a new site had it not been for a single record in 1998. As a result of this Adrian Spalding has been commissioned, through funding from EN, to undertake a preliminary investigation into the larval requirements on the site. Two adults were recorded on Wimbledon Common, Surrey during National Moth Night 1999. *Newsletter No. 39* of The Glamorgan Moth Recording Group provides an excellent summary of this species occurrence in that county, noting that the species has been recorded on a total of 77 occasions covering sixteen 10k squares, and including many records for 1999. The Group hopes to record further sites, and possibly new 10k squares, for the species in 2000. The moth was also reported from Devon (3 sites being reported in the Devon Moth Group's *Annual Report — 2000*), Dorset, Somerset and as a single example in Monmouthshire.

### **Four-spotted *Tyta luctuosa***

The species was again recorded on Portland, Dorset, but numbers appeared to be down on previous years. Encouragingly, there were records from two localities in Buckinghamshire. These are the first records for the county for many years. Additionally, the moth was reported from Essex (*Newsletter No. 15* of the Essex Moth Group), Kent (possible immigrants?) and Northamptonshire. We have been informed of a possible new colony discovered on the Isle of Wight.

### **Light Crimson Underwing *Catocala promissa***

Similar survey work was undertaken in the New Forest as for the Dark Crimson Underwing. Once again, this work confirmed the species' presence in a number of known strongholds and resulted in the discovery of at least one additional locality. In 1999, the flight season lasted from 13 July to 8 September and the highest number recorded at any one site was fifteen, this on 25 July.

### **Marsh Mallow *Hydraecia osseola hucherardi***

A site meeting was held between David Hutton (Kent Wildlife Trust), Ian Ferguson (BC) and MP to discuss this species at its north Kent site. Ian has surveyed part of the Medway for the foodplant and following the aforementioned meeting recorded a single adult amongst foodplant away from the main site. Ian intends to continue survey for the foodplant in the area in the hope of finding further colonies. He also intends to monitor the main colony on an annual basis. Numbers reported in 1999 at this well-known site were low.

There was very good news of this species on the Romney Marsh. Following a meeting with the Romney Marsh Countryside Project team and MP, organised by Paul Troake of Rye Harbour NR, at the then only known site on the Marsh, further potential sites were identified for survey. Sean Clancy volunteered to look at these sites and located a further colony of the moth. It is quite likely that the species may occur on other sites on the Marsh and further survey is planned to take place in 2000. At the original site some scrub clearance is being undertaken under the auspices of the Romney Marsh Countryside Project, which should also benefit the foodplant of the moth. Further to this, £150 has been donated from the proceeds of the 1999 National Moth Night in order to provide fencing to prevent grazing of a stand of the foodplant not too distant from the original site (although this is dependant on the agreement of the land-owner). Further details of this donation and the discovery of the further site will be published in *Atropos*. *Atropos* (9: 64) gives records from Rye Harbour, East Sussex, but these are likely to refer to vagrants from a nearby colony.

#### **Narrow-bordered Bee Hawk-moth *Hemaris tityus***

A breeding site was re-discovered in the East Anglian breckland by Andrew Musgrove, Mike Armitage, Tony Prichard and Richard Bashford. A note on this find is published in *Atropos* (9: 83) and has been mentioned in *British Wildlife*. PW visited the site which was characterised as an open grassy calcareous sward varying between 10cm and 20cm in height, which is possibly cut once a year at the end of the summer. Additionally we have received news of a single adult being recorded from a new site in North Hampshire, this being on chalk downland, and of adults being seen in Inverness-shire. The Devon Moth Group's *Annual Report — 2000* gives at least 3 localities for this moth.

#### **Scarce Merveille du Jour *Moma alpium***

An additional 10k square for this species has been found in Devon during the last couple of years. A single moth was found in a 10k square in the New Forest for which there was no post 1960 record. Survey work in the Eastbourne area, a former stronghold, failed to locate any examples of this species, although the moth was recorded in both East and West Sussex in 1999. The species was also reported from Cornwall.

#### **Silky Wave *Idaea dilutaria***

Martin Evans has been commissioned, through funding from EN, to undertake a preliminary investigation into the larval requirements of this moth in the Avon Gorge. Discussions are ongoing with EN and the Avon Gorge and Downs Wildlife Project (based at Bristol City Council) in order to ensure appropriate management is being undertaken for this species (and a species of *Coleophora*) as some sites are suffering from scrub invasion. This is complicated by the fact the site is renowned for its botanical interest.

Good numbers were found over three localities on the Gower by the Glamorgan Moth Recording Group and the species was again seen at its known North Wales site. Surveys of the known Welsh populations were funded by the CCW.

#### **Slender Scotch Burnet *Zygaena loti scotica* and New Forest Burnet *Zygaena viciae argyllensis***

The **Slender Scotch Burnet** work includes bracken clearance and an attempt to boost the coverage of Bird's-foot Trefoil *Lotus* at sites on the edge of the range of the moth, but with little signs of real success so far. However, the **New Forest Burnet**, although still highly vulnerable at its one known site, has shown encouraging signs of an increase in the last two years, hopefully associated with recovery of vegetation following the exclusion of sheep with a fence.

#### **Speckled Footman *Coscinia cribraria bivittata***

Considerable survey work was again undertaken for this species. Two adults were found, and these represent only the fifth and sixth confirmed records of the species since the late 1970's. This species has now been found as five individuals on four sites over the last four years. We would be interested

to hear of any survey work and sites visited that has been undertaken for this species in recent years, even if it proved negative. Work on this moth has been funded by an EN Species Recovery Programme grant and Wessex Water.

### **Straw Belle *Aspitates gilvaria***

Derek Coleman and Ken Willmott separately surveyed several sites in Surrey for the adult during 1999, but only located the species at two sites. MP recorded small numbers of this species on two restricted sites on the Surrey downs in 1999. One of these was coincidentally the same as that recorded by Derek and Ken, the other appears to be fairly close to the other site recorded. Ken noted that the species appeared to prefer a mosaic of medium to long Tor grass *Brachypodium pinnatum*, light scattered young scrub and herb rich turf. Graham Collins has been commissioned, through funding from EN, to undertake a preliminary investigation into the larval requirements on two Surrey sites. The species was also reported from Kent; a strong colony at one site.

### **Striped Lychnis *Shargacucullia lychnitis***

There is some very positive news for this species. Larvae were found on flowers of Dark Mullein *Verbascum nigrum* at several new localities in North and South Hampshire from late July to early September. All these colonies were found alongside roadside verges. Larvae were particularly abundant during 1999 at many of the previously known Hampshire sites. There are now fourteen post 1979 10k square records of this species from Hampshire of which six are new or represent the only recent records. This survey work was undertaken by MP, DG, John Chainey, Jenny Spence and members of the Hampshire and Isle of Wight Branch of BC. There is some indication that this may represent a genuine, at least temporary, increase in range as many of these localities were searched without success during the early 1990s. Searches at old localities in Dorset and Wiltshire proved negative despite the presence of the foodplant. A few sites in West Sussex were searched, but no larvae found, although the key area for the species in this county was not searched.

In Buckinghamshire, Peter Hall undertook an extensive selected survey with the intention of plotting the moth's distribution and highlighting ways of safeguarding its future. Peter reports that the council's verge cutting contractors are now increasingly avoiding Dark Mullein along roadsides until well after pupation has occurred. What is apparent from this and previous surveys in the county is that there can be quite large fluctuations in numbers of both foodplant and larvae from year to year. All indications point to the fact that the moth hasn't actually expanded nor contracted its range in Buckinghamshire much at all in the last hundred years, but it must be borne in mind that the aim of this project is to consolidate the moths status rather than to expand its range. A fuller report has been published in the *Bucks Invertebrate Group Bulletin*.

It is also interesting to note the record of an adult in Berkshire on the 31 July, an extremely late date, particularly considering many larvae had already pupated.

### **Toadflax Brocade *Calophasia lunula***

An *ad hoc* survey for larvae was undertaken in 1999 of possible sites between Sandwich, Kent and Browdown, Hampshire. The species was found to occur from Kingsdown, Kent to Pagham Harbour, West Sussex and was recorded as larvae in nine 10km squares. The majority of larvae were found on purple toadflax *Linaria purpurea*, the remaining few larvae were found on common toadflax *L. vulgaris*. The moth was found at most sites searched where purple toadflax was present, but not at all sites where common toadflax only was found. A full report, acknowledging all involved, will appear in *The Entomologist's Record & Journal of Variation*.

An approach has been made to the County Ecologists in East and West Sussex with the aim that key sites in Sussex will be monitored for larvae annually. The Vegetated Shingle Officer in West Sussex has also been contacted in relation to this species.

David Walker at the Dungeness Bird Observatory, Kent, recorded a total of 24 adults between 10 May and 12 August.

### **White Spot *Hadena albimacula***

Sean Clancy undertook survey work on the Ministry of Defence land at Hythe Ranges, Kent, last year and found larvae of this species. A new colony of this species was found on a cliff site in Dorset and also in Dorset, two adults also put in an appearance at the BC Conservation Office trap during 1999 indicating the presence of a further colony not too far away! David Walker at the Dungeness Bird Observatory, Kent, recorded a total of 369 adults between 21 May and 7 July, commenting that numbers were generally poor and late compared to most recent years. Survey for this species as a larva on coastal cliff sites is encouraged.

### **White-spotted Pinion *Cosmia diffinis***

PW, Barry Dickerson and Andrew Booth visited one of the remaining strongholds of this species in Huntingdonshire. Very few moths were noted, but the White-spotted Pinion was the commonest species seen. The wood has a substantial number of live tall (10-15m) Elm trees, those that were identified proved to be a hybrid between the Small-leaved Elm *Ulmus minor minor* and the Wych Elm *Ulmus glabra*. Elm was not the only major tree species in the wood, but it was a significant element of the understorey. Trapping of similar sites anywhere in southern England and Wales is recommended. The species was also recorded in Cambridgeshire, adjacent to a line of mature elms.

### **Brief summary of other UK BAP Priority Species**

- We are aware of only a single adult of the **Argent & Sable** *Rheumaptera hastata* being recorded in North Hampshire during 1999. The moth was seen in Dorset and imagines of ssp. *nigrescens* were seen in Inverness-shire.
- **Ashworth's Rustic** *Xestia ashworthii* was again reported from the Snowdonia area.
- The **Barred Tooth-striped** *Trichopteryx polycommata* was recorded at a site in East Sussex (*Atropos*, 9: 65).
- Some English and Welsh sites continue to be monitored for **Belted Beauty** *Lycia zonaria britannica*. Volunteers are required to survey sites in Lancashire, and to monitor any additional colonies found.
- The **Bordered Gothic** *Heliophobus reticulata marginosa* was not seen at the Portland Bird Observatory in 1999, this is the first time for many years that it has gone unrecorded at this site. An example from Norfolk is figured in *Atropos* (9: pl. 7, fig.19).
- We have received records of the **Clay Fan-foot** *Paracolax tristalis* from two sites in East Sussex for 1999.
- There has been a report of the **Common Fan-foot** *Pechipogo strigilata* from Surrey during 1999 in an area where the species was formerly recorded.
- *Newsletter 3* of 1999 of *Gloucestershire Moths* reports records of the **Drab Looper** *Minoa murinata* from several new 10k squares. *Newsletter 6* reports four further new localities for this species.
- The **Heart Moth** *Dicycla oo* was again seen at its Surrey stronghold in 1999. The Corporation of London is planning to fund a three year survey of this species at the site.
- The **Lunar Yellow Underwing** *Noctua orbona* was found in Suffolk in 1999, including larvae amongst *Cladonia* heathland, and during a BENHS field meeting. Reports suggest that the species appears to be experiencing a reasonable year in its Suffolk strongholds (Suffolk Moth Group).
- A single adult of the **Olive Crescent** *Trisateles emortualis* was reported at a new site in Hampshire during 1999. *Newsletter No. 14* and *No. 15* of the Essex Moth Group details records from two sites in Essex.
- A survey is ongoing for the **Orange Upperwing** *Jodia croceago*. Details have been publicised in *Atropos*, *The Entomologist's Record & Journal of Variation* and the *British Journal of Entomology and Natural History*. It is possible that there is still time to contribute to this survey, depending on

when you receive this bulletin. Please make an effort, even negative records are important. The Devon Moth Group's *Annual Report — 2000* reports a record from the Stover Park area.

- The **Square-spotted Clay** *Xestia rhomboidea* was found in two 10k squares in Hertfordshire in 1999 and was reported from Kent and West Sussex. The *Norfolk Moth Survey Newsletter No. 56* gives a record from Norfolk and *Atropos* (9: 78) gives a record for Skomer Island, Pembrokeshire. A useful, but little known tip, for finding this species is to search for the adult at the flowers of burdock after dark.
- The **Sword-grass** *Xylena exsoleta* was reported from Fair Isle (*Atropos*, 9: 75), the Isle of Man (*Atropos*, 9: 77) and Gwynedd.
- During a field meeting in Devon, the **Waved Carpet** *Hydrelia sylvata* was reported to be the commonest moth at one trap. The Devon Moth Group's *Annual Report — 2000* notes that this moth was found in six sites during 1999. The species was also recorded in West Sussex during 1999.
- *Newsletter 5* of 1999 of *Gloucestershire Moths* reports two records of the **White-line Snout** *Schrankia taenialis*. The Devon Moth Group's *Annual Report — 2000* gives this species as being found in 6 sites during 1999. During National Moth Night this species was found in Hampshire (*Atropos*, 9: 46). The species was also recorded in at least three further localities in Hampshire during 1999. A December record from Cornwall is given in *Atropos* (9: 60).

### **British Entomological and Natural History Society and BC working in partnership through “The Action for Threatened Moths Project” - John Phillips (BENHS Conservation Working Group) and Mark Parsons**

The BENHS counts virtually all the leading field moth specialists in the UK amongst its membership. The Conservation Working Group of the BENHS has always held the view that the society should be more involved in practical conservation work and feels that BC's *Action for Threatened Moths Project* is an ideal opportunity to involve their membership.

The BENHS Conservation Working Group proposes that volunteers from the societies membership are sought to become involved in monitoring key sites for various BAP species. It is also proposed that the Society should take the lead in investigating the requirements of the **Brighton Wainscot** *Oria musculosa* and the **Barred Tooth-striped** *Trichopteryx polycommata*. This is anticipated to include survey work, monitoring of populations and investigation into the species' autecology aimed at identifying habitat requirements.

Full details of how to take part in this initiative will appear in the *British Journal of Entomology and Natural History*.

### **Update on some UK Biodiversity Action Plan butterflies - a summary**

#### **Adonis Blue *Polyommatus bellargus* – Nigel Bourn**

The Adonis Blue has been the subject of targeted surveys and research for the last three years. In 1997 Georgina Pearman surveyed the Dorset Coast and found almost double the number of colonies from that found during the last comprehensive survey in 1978. In 1998, survey in north Dorset by Estella Roberts was hit with bad weather and the generally poor season. In 1999, MSc student Katherine Whitfield repeated this survey, and extended the study further north into Wiltshire. All this data has been used to produce detailed site information accessible to site owners and managers as well as allow detailed comparisons of the status of the Adonis Blue over 20 years. This information allows us to predict how the butterfly is likely to respond in future years and at what scale across the landscape we should be aiming to conserve species. This is particularly relevant to the Adonis Blue in South Wessex where payments are available to help farmers graze their marginal land through the Environmentally Sensitive Areas scheme run by MAFF.

**Marsh Fritillary *Euphydryas aurinia* - Site Review Project in England - Russel Hobson (BC Marsh Fritillary Officer)**

A re-survey of all known 1990's sites is currently underway. About a third of the sites were searched for larval webs in the autumn of 1999. Initial impressions seem to suggest that population trends have reached a 'trough' across the UK (with notable exceptions) and highlight over-grazing as a problem on former and potential sites now being managed. This data will need further analysis and validation during 2000. Management leaflets will be available from April. All survey work has to be completed during Autumn 2000 and more help is still needed.

**Pearl-bordered Fritillary *Boloria euphrosyne* - Ruth Feber (BC Threatened Fritillaries Officer)**

Results from the Pearl-bordered Fritillary National Survey have shown that the butterfly has declined by more than 75% since the beginning of the century, and by a dramatic 52% in the last 15 years. Colony losses have occurred widely in woodland and bracken habitats across the UK, particularly in England and Wales. On the positive side, though, the survey discovered new colonies in the glens of central/northern Scotland. As part of the Action Plan programme, research work has identified the precise habitat requirements of the butterfly and, using this data, it is now possible to target conservation efforts more effectively. This is being done through a range of activities which include advisory work at both policy and local level, publicity to disseminate the results of the research and survey work, training days, liaison with conservation bodies and landowners, and further survey work to fill in gaps in survey coverage.

**Pearl-bordered Fritillary *Boloria euphrosyne* - New Project in the Wyre Forest – Nigel Bourn**

Wyre Forest in the West Midlands is a key site for the threatened Pearl-bordered Fritillary. A sympathetic and expanding management programme for the butterfly by Forest Enterprise (FE) has resulted in significant local increases of the butterfly, against the trend of a huge national decline.

During last summer, a joint project was set up between BC and FE to monitor changes in habitat quality and butterfly abundance at different sites within the forest. The aim is to develop long-term management recommendations for rides and glades which link areas of coppice – these will allow the butterfly to move from one area of coppice to the next as conditions become shady and unsuitable. Trial areas will be mown, scarified (scraped) or coppiced in a planned programme of management, and the effects of the management regimes on the Pearl-bordered Fritillary, and the violets, leaf litter and nectar sources it requires, will be compared. BC's Threatened Fritillaries Officer, Ruth Feber recorded crucial baseline data during 1999. The project will be carried out alongside an already established programme of coppicing in the Forest, and will involve FE and BC staff, and local students.

**Heath Fritillary *Melitaea athalia* - Ruth Feber**

A re-survey of all known Exmoor sites for the Heath Fritillary was carried out in 1999. Sadly, the butterfly was seen at only 14 of the 29 former sites. Whilst poor weather over the last two years was likely to have contributed to the generally low numbers, other factors are almost certainly involved in this major decline, and further work is needed. By contrast, populations of Heath Fritillary at the Blean Woods complex in Kent appeared to be thriving, and several new colonies were recorded in June. Early September brought news of a second brood of Heath Fritillary, in very high numbers, in Essex, which is an unusual phenomenon for this species in the UK.

**Grazing success for the Silver-spotted Skipper *Hesperia comma* – Martin Warren (BC Head of Conservation)**

BC has produced a new report on the best grazing options to help the Silver-spotted Skipper. The report is based on 15 years painstaking research at Beacon Hill National Nature Reserve in Hampshire involving MW and Jeremy Thomas of ITE, Furzebrook. The data analysis and completion of the report, by Rob Wilson of Leeds University, were funded under ENs Species Action Programme.

A summary of the early results were described in *BC News* (No. 54: 21-26) but the current report describes the findings in full. Although the butterfly is known to require short, sparse downland turf, the study shows that late summer grazing by sheep is detrimental, partly because females avoid laying eggs on recently nibbled tufts of the food-plant, Sheep's Fescue *Festuca ovina*, and partly because sheep remove nectar sources used by adults. The best grazing regimes are those using cattle which poach the ground and create bare patches used for egg-laying. Sheep grazing can also create suitable conditions on steep slopes or where there is some rabbit activity, provided summer grazing (from June onwards) is avoided. The best news is that Silver-spotted Skipper numbers have increased steadily at Beacon Hill since 1990 as a result of careful management by EN, aided by several hotter than average summers. The research should ensure that this success is maintained.

Full reference:

Warren, M. S., Thomas, J. A. and Wilson, R. J. (1999). *Management options for the Silver-spotted Skipper butterfly: a study of the timing of grazing at Beacon Hill NNR, Hampshire, 1983-1998*. Available from Butterfly Conservation, PO Box 444, Wareham, Dorset BH20 5YA. Price £5.

## **News, notes and updates**

### **Moths and Butterflies and the Wildlife Trusts - Announcement**

It has just been announced that the Wildlife Trusts have created an "official" point of contact for them in matters relating to Lepidoptera. We are pleased to report here that this is Martin Harvey, who has been Moth Conservation Officer for BC's Upper Thames Branch since 1994. Martin's title is "Lepidoptera Liaison Officer". This remit is in addition to his current job with the Hampshire Wildlife Trust. He can be contacted at the Hampshire Wildlife Trust, 8 Romsey Road, Eastleigh, Hampshire, SO50 9AL (E-mail: MartinH@hwt.org.co.uk). The liaison role will be developed during the year, with the aim of maintaining better communications between BC and the Wildlife Trusts.

### **Butterfly Conservation and the National Scarce Moth Recording Network - David Green**

The information that has been gathered from the National Scarce Moth Recording Network for The National Scarce Moth Recording Scheme is being made use of in many conservation initiatives throughout the UK. In particular, the Network's database forms the backbone of the BC Moth Conservation Officer's UK BAP Priority Species conservation work. This data is proving invaluable and we ask all of you to continue to support the Network.

As some of you may already be aware, an unexpected opportunity has just arisen which may enable us to input a further batch of records into the database. However, in order to take advantage of this, we will need to act quickly. For those of you who hold data, we would like to receive records of all scarce and threatened moths and particularly the UK BAP Priority Species that have not already been submitted to the Network. For the UK BAP Priority Species, we are also keen to receive news of any negative searches as well as positive results. It is often difficult to judge the amount of recording effort that is going into searching for these rarer moths.

We would of course be pleased to receive records in any form but they would be most useful to us as either: -

- (i) A "RECORDER" export file (preferred option)

or

- (ii) A word-processed text or spreadsheet file (we can probably accept virtually any format but please contact DG at the Conservation Office if you have any queries)

The information we would like is the species name, site name, a 6-figure grid reference, life stage, numbers seen and observer's details. Any other information you feel may be relevant would also be useful.

Please submit any records to: David Green, Butterfly Conservation, Conservation Office, PO Box 444, Wareham, Dorset BH20 5YA. Tel: 01929 400209 (E-mail: dgreen@butterfly-conservation.org).

### **The Status of Lepidoptera in the New Forest - David Green**

In 1998, BC was commissioned by the Forestry Commission (FC) to collate and assess existing records of butterflies and moths from the New Forest and to co-ordinate the collection of new records. The project was financed by the European Union Life-Nature Fund. The intention is that this information will be used by FC to ensure that appropriate conservation measures will be incorporated in to the New Forest Special Area for Conservation Management Plan that is presently being prepared. The final report "*The Status of Lepidoptera in the New Forest*" will be a comprehensive and up to date audit of the moths and butterflies of the New Forest at the end of the twentieth century. It is hoped that aspects of this study will be published in articles in widely available journals in due course.

Data for the project has been gathered from many individuals and organisations. Volunteers have paid a crucial role in this project. Particularly important sources of information have been the butterfly and moth databases of the Hampshire and Isle of Wight Branch of BC and data collected during recent BENHS field meetings. Records have also been collated from the FC insect collecting permit returns, the Invertebrate Site Register, the National Scarce Moth Recording Scheme and the databases of the Wildlife Trust and NT. In effect, the final report is largely a summary of the results of countless person hours of volunteer effort from both local and visiting entomologists.

The project has identified 1,499 species of Lepidoptera that have been recorded from the New Forest, including 67 RDB and 177 Nationally Notable species. This total illustrates the historical richness of this area for Lepidoptera. Nevertheless, it now seems that over 75% of the scarce and threatened butterflies and around 58% of the scarce and threatened moths may have been lost and many of the remaining species now survive only as small, relict populations. Despite this, many national rarities do still occur and the area has considerable potential for habitat restoration and improvement.

Survey work during the project has concentrated on both generally under-recorded areas and on specific key species. In particular, BC volunteers have been targeting likely areas for the **Pearl-bordered Fritillary** *Boloria euphrosyne* in an effort to gain a better understanding of the species' status and distribution in the Forest. Potential habitat areas were surveyed during the winter of 1998/1999 and searches for adults took place during the 1998 and 1999 flight seasons. The results are encouraging and suggest that the New Forest still supports an important population of this nationally declining butterfly. Targeted fieldwork for moths included surveys for the **Light Crimson Underwing** *Catocala promissa*, **Dark Crimson Underwing** *C. sponsa*, **Scarce Merveille du Jour** *Moma alpium*. In addition, it has also proved possible to obtain updated records for many other species including the **Triangle** *Heterogenea asella* and **White-line Snout** *Schrankia taenialis*.

Plans for further Lepidoptera related work in the New Forest are currently being discussed and it is hoped that projects on the mire systems and the ancient oak woodlands of the forest may take place in the future.

### **Moth Recording Questionnaire May 1999 - David Green**

In May 1999 BC distributed a questionnaire to members of the National Scarce Moth Recording Network aimed at establishing the extent of computer methods in use at present. We will be using the results to help us reach some decisions on the future development of the Network and specifically to assist in planning greater exchange of moth data by electronic means. The national database uses the RECORDER biological recording package and we were particularly keen to see how many members of the Network are using this software and what, if any, problems are being encountered. The



questionnaire generated a very encouraging response, with 45 replies being received. We are most grateful to all of you who took the trouble to complete and return this form.

We thought you might be interested in a very brief summary of the completed forms. Thirty-nine members are using personal computers to store moth data in some form, the most popular option being some variety of spreadsheet, generally a Microsoft or Lotus product. Others are using full databases including 13 who are using the current version of RECORDER. Those of you that have tried exchanging data using the RECORDER import and export facilities have reported no major problems.

It is significant that there are at least a further five members who have RECORDER software but choose not to use it, all citing difficulty of use. Some of the comments we received on this particular package are nearly unrepeatable and it is clear that many people are putting their faith in the forthcoming Windows version of RECORDER (RECORDER 2000) which it is hoped will be easier to understand and use.

DG attended the launch of the RECORDER 2000 beta version at the Natural History Museum last December (a beta version is a final prototype intended to be used for ironing out any remaining minor glitches). We are enthusiastically awaiting the launch of the finished product which should be some time around the middle of this year.

### **UK BAP Priority Moths E-mail Newsletter - David Green**

Early last summer we began sending out a trial mailing of a short E-mail newsletter containing information primarily relating to UK BAP Priority Moths. This went out more or less weekly during the field season. The main aim was to encourage recording of the UK BAP Priority Species by informing recipients of when species were flying and occasionally including recording tips. The newsletter relies heavily on contributions from recipients, the idea being to provide a quick turn around of information.

This trial run seemed to be well received and we would like to take this opportunity to thank everyone who contributed information for these mailings. Our intention is to continue to produce the newsletter next season. We also intend to widen its circulation. **If you would like to be added to the circulation list, please send an E-mail to David Green at the Conservation Office (dgreen@butterfly-conservation.org).** Please remember that the success of this depends on the contributions received and this is also the address to contact if you have any news on UK BAP Priority Moths you would like to be included.

### **National Moth Night - Mark Tunmore (editor, *Atropos*)**

On 17 July 1999 the first UK National Moth Night took place, jointly organised by *Atropos* and *InsectLine* with Brian Goodey in charge of data analysis. It was hoped that the event would be a celebration of moths, a giant recording effort and a means of focusing the efforts of moth recorders around the country. Another important aim was to raise the profile of moths amongst the public, and to this end a number of organised events took place in many areas. Perhaps inevitably, the weather on the night was less than ideal, but despite this the response was very encouraging and most recorders seemed to relish the opportunity to take part in a national event. The complete results were published in the January 2000 issue of *Atropos* and make fascinating reading. In all, a total of 304 sites returned data from 70 vice-counties; a total of 798 species (approximately a third of the British list) and a minimum of 40,203 moths were recorded. There were some significant captures, including many new vice-county (VC) records. All records were sent to the relevant County Recorders, who provided a valuable means of sifting the information so that any records considered erroneous could be removed. The event attracted media attention at both national and local levels, including coverage on the BBC's *Countryfile*. A premium rate information line was provided by *InsectLine* to broadcast details of organised events around the country. A total of £150 was raised from this line, which is to be donated to a management project for the **Marsh Mallow Moth *Hydraecia osseola hucherardi*** (a UK BAP Priority Species) on Romney Marsh, subject to agreement with the landowner. 1999 was very much a

pilot year to help gauge response and refine the structure of what, we hope, will become an annual date on the mothing calendar. The amount of useful information that can be gathered from such an event is almost unlimited. In future years there is the potential to harness the recording effort of National Moth Night for specific projects by encouraging recorders to look for particular species or gather specific information where appropriate. Over time, the data could provide a useful measure of population changes and an indication of the number of active moth recorders.

It is the organisers' intention to change the date of National Moth Night each year in order to maximise the amount of data gathered. **The date for the 2000 event is to be Saturday 23 September.** This may seem like a late date but it was chosen to aid organised events for the public, the early onset of darkness and colourful autumn species being conducive to such events. Full details of the exact data required can be found in the January 2000 issue of *Atropos* or by phoning *InsectLine* on 09068 700250 (calls charged at 60p per minute). Essential information includes recorder's name, site details, weather, type of traps or recording methods used, duration of recording, full species list and, where possible, an indication of numbers. To add a fun element to the event, various prizes are on offer. We would be pleased to receive details of any organised events to publicise on the National Moth Night Information Line, proceeds from which will be donated to conservation projects; details can be left on the *InsectLine* hotline (01565 722928). We would welcome small grant applications to the address below for moth conservation projects, though the amount of money available will depend on the number of events we are able to publicise and the popularity of the Information Line. Though there is great potential to trap in far-flung places and hunt for rare species, I must stress that *all* results are valuable; if you catch two species in your back garden we would still be pleased to hear from you as it will add to a fascinating picture of what is on the wing and where on the night of Saturday 23 September 2000.

The January 2000 issue is available at a cost of £6 or as part of an annual subscription (£15) from 36 Tinker Lane, Meltham, Huddersfield, West Yorkshire, HD7 3EX. The National Moth Night Information Line number is 09068 446862 (operational from April).

### **Courses at Kindrogan Field Centre, Enochdhu, Blairgowrie**

Details supplied by Paul Kirkland (Conservation Officer, BC)

For more information, ring 01250 881 286:

N.B. The courses are being run in association with BC. (Course fee reductions for all the following courses are available for BC members through a grant from SNH, apply to Edinburgh BC).

#### **BASIC BUTTERFLIES**

21 - 23 July

Tutor: Pete Kinnear

Cost: £95.00

This is a starter course for Countryside Rangers, Wardens, Forestry Staff and keen amateurs who want to take part in survey work but don't know where to start. No previous knowledge is required. The emphasis will be on practical fieldwork and identification but we will also look at aspects of butterfly recording, their breeding, biology and conservation. Pete has spent more than 25 years working professionally in nature conservation in Scotland. He is the Butterfly Recorder for Fife and the joint author of the *Butterflies of Fife* - the first local Butterfly Atlas published in Scotland. He carried out extensive field work for the *New Millennium Butterfly Atlas* and written regional action plans for the East of Scotland and Glasgow & South West Scotland branches of BC.

#### **ENJOYING BUTTERFLIES**

28 - 30 July

Tutor: Pete Kinnear

Cost: £95.00

This weekend provides a leisurely introduction to butterflies for gardeners, naturalists and those who simply want to learn more about these beautiful insects. We will look at their natural history,

conservation and the methods used to study them in the wild. Learn how to attract more butterflies to your own garden and the fun of recording in your own back yard.

#### MONITORING BUTTERFLIES

31 July - 3 August

Tutor: Pete Kinnear

Cost: £145.00

This is a practical, intermediate level, course for professionals and experienced amateurs who want to learn how to carry out systematic survey and monitoring. Experience of other forms of fieldwork and recording would be an advantage. The course will enable participants to set up transects, undertake butterfly survey work with confidence and sharpen identification skills.

#### INTRODUCTION TO MOTHS

19 - 22 August

Tutors: Paul Waring & David Barbour

Cost: £145.00

This course is an introduction to the fascinating world of moths, covering biology, identification and monitoring methods as well as ecology and conservation. Live moth trapping will take place at night and there will be field trips to nearby sites during the day. The Course tutors are well known professional entomologists whose expert knowledge of moths will ensure that this will be an enjoyable and informative course for beginners and enthusiasts alike.

#### **The Rushy Meadows project - Paul Waring**

This project aims to harness volunteer field recording effort to find out what species of Lepidoptera and other animals are present on Rushy Meadows SSSI, Oxfordshire, and to use this information to advise on management. To find out more, come along to one or both of the following field meetings taking place this year. Additional meetings will take place at different seasons over the next four years of a new five-year management agreement between EN and the private owners.

22 July - Meet at 14.30 and 20.30hrs at SP484 141 at the last car park before the level crossing on the railway line. To get there, turn west into Lyne Road at the traffic lights at the junction of the A423 and Kidlington High Street and follow the road round several curves past housing estates to its end. Rushy Meadows is a series of unimproved alluvial grasslands alongside the Oxford Canal, with thick thorn hedgerows containing large Crack Willows, Guelder-rose and Wayfaring Tree. The meadows are dominated by three species of rushes *Juncus* spp. with many flowering plants including Devil's-bit Scabious, Marsh Valerian, Early Marsh Orchid and Water Avens. There are sedge-fen areas and a stream runs through the site. Trolleys can be used along the canal towpath if you have one for transporting your generator(s).

23 Sept. (National Moth Night) - Evening meeting only. Meet at 18.00hrs, same place as 22 July. Come and spend National Moth Night with us and help boost the list of species we record.

Contact leaders: Paul Waring (01733 571917) & Martin Townsend (01865 777810)

#### **Summary from selected BC branches - compiled by David Green & Nigel Bourn**

##### **Cumbria (North of England Branch) - compiled from notes supplied by Steve Doyle (BC Conservation Officer)**

Each winter and spring there are around ten work parties, one of which is always held on a **Marsh Fritillary** *Euphydryas aurinia* site. Last winter and this winter efforts have been focused on south Cumbria to create more suitable habitat for the **Pearl-bordered Fritillary** *Boloria euphrosyne*, **High Brown Fritillary** *Argynnis adippe* and **Silver Washed Fritillary** *A. paphia*. The group works closely with other partners such as EN, NT, Cumbria Wildlife Trust, Lake District National Park and Forest Enterprise. For this reason the Conservation Work Parties are run under the banner of *The Morecambe Bay Butterfly Action Group*.

The branch is also helping the NT to create more habitat and locate more larval foodplant sites for the **Netted Carpet** *Eustroma reticulatum*.

In the coming season thorough surveys of the **Marsh Fritillary** sites are again planned along with several field trips and recording sessions for various species.

#### **Devon Branch - compiled from notes supplied by Paul Butter (BC Branch Moth Officer)**

Forty-six species of moth were recorded at a moth event for Exeter City Council on 2 July. As this coincided with the Exeter Festival, the event was accompanied by live music and fireworks! Members of the public were intrigued by the variety of moths present and learnt that they aren't all small brown things that eat clothes!

Moth trapping was undertaken at the Devon Branch reserve at Lydford. On the 3 July 124 species were recorded, including the **Double Line** *Mythimna turca* and **Waved Carpet** *Hydrelia sylvata* (both UK BAP Priority Species) and the very elusive pyralid *Phlyctaenia stachydalis*. The **Orange Moth** *Angerona prunaria* was extremely common and quite a sight at dusk. This was all a nice reward for lugging the equipment over a mile along the old railway track.

Trapping at Hakeford Farm, nr. Barnstaple, an organically run smallholding, continued in 1999. A coppiced wood adds to the wildlife interest of the site where 84 species were recorded on National Moth Night. A trap was run at an aerial site - on the roof of a tree house! This trap caught a different list to that on the ground nearby, including **Scarce Silver Lines**. The **Waved Carpet** *H. sylvata* and **Pinion-streaked Snout** *Schrankia costaestrigalis* were also recorded on the night. At Ashclyst Forest on the 7 August, four species of *Cyclophora* were recorded, these being **Maiden's Blush** *C. punctaria*, **Clay Triple Lines** *C. linearia*, the **Mocha** *C. annulata* and the **False Mocha** *C. porata*.

Several field trips are planned for 2000. Effort will be concentrated on the Lydford BC reserve, but five other sites will also be visited (contact Paul Butter 01392 875401 for further details).

#### **Devon Branch - Maurice Edmonds (BC Branch Conservation Officer)**

Perhaps the most important event of the year was the accidental discovery of only the second currently known colony of the **Small Blue** *Cupido minimus* in the county. This was in a disused limestone quarry in a built up area of Torquay. At least 35 records of the **Monarch** *Danaus plexippus* were received, mainly from the south coast, during the large-scale invasion of Britain following the American hurricane. Several Branch members assisted Russell Hobson in his survey of **Marsh Fritillary** *Euphydryas aurinia* breeding areas in the Culm Grassland areas of the county during the year.

Finally, conservation tasks were carried out by the Branch at the BC Reserve on Lydford Old Railway Line. This is an annual event to maintain the habitat for the re-introduced **Heath Fritillary** *Melitaea athalia*. In spite of indifferent weather maximum flight numbers were still reasonable, and as fresh areas are being opened up in the adjoining Lydford Forest by the FC, the Branch views the future for the butterfly with optimism, bearing in mind that the original reintroduction took place in 1993.

#### **Dorset Branch - compiled from notes supplied by Robert Smith (BC Branch Conservation Officer)**

During 1999 a release of adults of the **Brown Hairstreak** *Thecla betulae* was undertaken at one site. A subsequent search for eggs revealed just one! Further Brown Hairstreak are being kept in captivity with the intention of topping-up any population at the release site. After the successful location of colonies of the **Lulworth Skipper** *Thymelicus acteon* along the Fleet coastline in 1998, further surveys revealed more colonies along the Fleet as well as on Portland itself. A third Dorset colony of the **Wood White** *Leptidea sinapis* was located during the year whilst re-surveying old haunts for the

**Pearl-bordered Fritillary** *Boloria euphrosyne*. EN has now become involved with management suggestions and coppice grant assistance.

A second BC reserve on Portland was opened during 1999, this being Perryfields. Conservation work parties concentrate on these reserves, but work parties also assist at various non-BC reserves.

Some 35 transect walks are now undertaken yearly by Branch members on different reserves and private land across the county. Accumulated data assists in the management of each area and is now being utilised by outside agencies such as FWAG. Various conservation tasks are planned for 2000 and will be detailed in the Dorset Branch Events newsletter.

#### **Northern Ireland Branch - compiled from notes supplied by Ernie Donaldson (BC Branch Moth Officer)**

A wide range of events were held in 1999 including lectures, field recording and conservation work. Early in the year the Regional Action Plan for Northern Ireland was completed. Although most fieldwork was aimed at filling gaps in our maps of butterfly species distribution there has been an increasing interest in the recording and conservation work for moths. A band of enthusiasts now regularly operate light traps which yield much useful data. The records are collected on a computerised database at The Centre for Environmental Data and Recording (CEDAR) which was established in 1995 by the Ulster Museum, Belfast. This database is interrogated to produce an annual Butterfly and Moth Report by BCNI Branch and will also be used to produce a Provisional Moth Atlas later this year (2000).

A highlight of the 1999 programme was the second residential moth workshop led by PW. This event established new records for species scarce in Northern Ireland, including two species not previously recorded; the **Satin Beauty** *Deileptenia ribeata* and **Slender Brindle** *Apamea scolopacina*. At least four examples of the **Cloaked Pug** *Eupithecia abietaria* were recorded at Bohill, Co. Down. This moth is rare in UK terms and a local management plan is being prepared to maintain its hostplants for its continued survival.

#### **Warwickshire Branch - David Brown (BC Branch Moth Officer)**

1999 continued to be a poor year for moths in Warwickshire. However, early in the year evidence of a substantial colony of **Lunar Hornet Clearwing** *Sesia bembeciformis* was discovered in the tall trees bordering the car park of Ryton Organic Gardens. This colony only became apparent when Sally Cunningham notified BC having found tunnels and exit holes in felled trees.

The **Humming-bird Hawk-moth** *Macroglossum stellatarum*, now becoming an annual visitor to Warwickshire, was observed frequently during the summer in many gardens throughout the County. On 4 August the Revd Graham Long confirmed the first ever caterpillar of this species in the County, found in a garden in Rugby by Miss K. Bough.

Although no new species were added to the County list during 1999, the following interesting species were observed: **Clouded Magpie** *Abraxas sylvata* at Solihull (A. Divett) and at Hampton Wood (R. Bliss), these being the first in VC38 for 3 years. The **Beautiful Carpet** *Mesoleuca albicillata* at Crackley Wood, Kenilworth (M. Astley) was last recorded in 1997.

To acknowledge the first ever National Moth Night on 17 July, the Warwickshire Moth Group operated 12 mercury vapour lights at Whitacre Heath N.R. A massive total of 118 species of macrolepidoptera were recorded, including **Silky Wainscot** *Chilodes maritimus*, **Double Lobed** *Apamea ophiogramma*, **The Suspected** *Parastichtis suspecta* and **Dingy Shell** *Euchoeca nebulata*.

Warm weather during September produced some unusual catches at Charlecote, including the **Scarce Bordered Straw** *Helicoverpa armigera*, a **Dusky Lemon Sallow** and the unusual occurrence of a partial second brood of the **Lilac Beauty** *Apeira syringaria* (D. Brown). The mild weather continued until the end of the year with **Silver Y** *Autographa gamma* moths appearing in December at

Charlecote. Even 31 December was mild and at Charlecote **December Moths** *Poecilocampa populi*, **Mottled Umbers** *Erranis defoliaria* and **Dark Chestnuts** *Conistra ligula* were recorded, but rather appropriately the final species of the 20th Century to arrive at ten minutes before midnight was a **Satellite** *Eupsilia transversa*.

#### **West Country Branch - compiled from notes supplied by Roger Sutton (Joint Results Co-ordinator)**

The West Country Branch held eleven trapping sessions at seven reserves during 1999. Several interesting species were recorded including the **Double Line** *Mythimna turca*, a UK BAP Priority Species, at Langford Heathfield. A further UK BAP Priority Species was possibly seen, this being the **Argent & Sable** *Rheumaptera hastata*, but it is considered that this species' occurrence requires confirmation. Elsewhere **Blomer's Rivulet** *Discoloxia blomeri*, **Beautiful Snout** *Hypena crassalis* and **Cloaked Carpet** *Euphyia biangulata* were recorded.

A number of field trips are planned for 2000. Eleven sites have been selected for butterfly field meetings, including joint meetings with the Devon, Dorset and Wiltshire Branches. Nine separate venues have been selected for moth evenings, including Buckland Wood, Mount Fancy and Thurlbear Quarrylands. A range of scarce species have been found at Thurlbear Quarrylands previously, including **Dotted Chestnut** *Conistra rubiginea*, **Mocha** *Cyclophora annulata*, **Six-belted Clearwing** *Bembecia ichneumoniformis* and **Small Eggar** *Eriogaster lanestris*. Contact Roger Sutton on 01823 663510 for further details of the moth evenings.

#### **West Midlands Branch - Neil Gregory (Worcestershire BC Branch Moth Officer)**

In 1999 the Worcestershire Moth Group, part of the West Midlands Branch of BC visited eleven sites to undertake trapping. The fruits of our labour turned up a few very interesting species and many others. This year 190 macro and 138 micro species were recorded, of which three are of particular interest; the **Festoon** *Apoda limacodes*, **Angle-striped Sallow** *Enargia paleacea* and **Mere Wainscot** *Chortodes fluxa*. The **Small Rufous** *Coenobia rufa* was also seen; this has not been trapped in Worcestershire before. A few other species of note described as being "Rare and infrequently recorded and/or extremely localised species in Worcestershire" (A. Simpson *pers. comm.*) were recorded; **Small Seraphim**, **Southern Wainscot** *Mythimna straminea*, **Buff Footman** *Eilema deplana* and **Bordered Sallow** *Pyrrhia umbra*.

1999's focus was on Worcestershire, but in the year 2000 a more intense study of Herefordshire is planned; dates appear in our next Branch newsletter. These visits would not have been possible without the continuing support of ENs Three Counties Team as they supplied a generator for us to power several traps.

#### **Wiltshire Branch – compiled from notes from Frank Lowe (BC Branch Moth Officer)**

Professor Humphrey Kay and FL arranged about a dozen public moth evenings on behalf of BC and the Wiltshire Wildlife Trust. Unfortunately, many of these were spoilt by poor weather and were poorly attended.

During 2000 the plan is to concentrate efforts on the UK BAP Priority Species and trying to cover Wiltshire Wildlife Trust reserves where possible. Each butterfly transect walker will be given a list of all the day-flying moth species that they could see in the county, including the time of year it is on the wing and its habitat. The **Argent & Sable** *Rheumaptera hastata*, in particular, will be highlighted.

#### **Other activities (moths) - Mark Parsons**

Whilst it may seem to some that myself, DG and PW have indulged ourselves in going out recording moths, much of this effort has served a purpose. We have been able meet up with site owners and managers and to make contact with local recorders. We have to become familiar with these species and their habitat requirements if we are to be able to provide any sensible advice on the next step

forward. There are still several UK BAP Priority Species and Wildlife & Countryside Act species we haven't seen between us and will be relying on certain of you to provide advice to us. Even when we have seen these species ourselves, it is useful to discuss our experiences with others. Much needs to be done on nearly all of the species to enable their conservation, whilst we have to be careful not to take our eye off of what is happening (declines or otherwise) with other species, including micros.

Education also forms part of our remit. We have just produced a general leaflet on moths which is aimed at a wide audience. We are trying to make moth conservation even more of a core activity of BC than it currently is and to this aim we have given talks to several local branches. We have also given talks to other societies and organisations, including local teams of EN, or provided poster exhibits for several meetings. We have tried to raise the profile of moths over a wide range of organisations and have liaised with many governmental and non-governmental organisations over moth related questions and problems. Further to this, we have dealt with a great many moth related queries, including several from the media. Indeed, I took part in a Radio 4 interview on Portland, Dorset, in only the second week of employment with BC!

Fund-raising has been an interesting part of the job. Many of the Action Plans will not be substantially progressed without financing. It is early days yet, but we have had some limited successes so far.

We are trying to work towards closer co-operation with a range of societies and organisations. Amongst others, we take part in Biodiversity Challenge and JCCBI meetings and have been involved in meetings relating to the National Biodiversity Network. Between us we are also members of council or committees of a range of societies, including the Societas Europaea Lepidoptera and the British Entomological and Natural History Society. BC alone will not be able to achieve many of the moth and butterfly conservation objectives, but, through support from the Country Agencies (EN, CCW and SNH) and JNCC, it is the organisation that has the framework to support many positive initiatives.

Feedback is important and this bulletin is just one way of providing this. We are endeavouring to publish articles in a wide range of journals covering all aspects of our work and we will encourage those of you who take part in specific projects to do the same.

### **Updates to the names and addresses of BC Branch Moth Officers and County Moth Recorders - David Green**

*National Moth Conservation Project News Bulletin 10* provided a list of County Moth Recorders and a directory of BC Branch Moth Officers. Recent changes to these are listed below. Please contact DG for any future updates. Please ensure that records are sent through the County Recorders wherever possible, to enable vetting etc.

#### **Hampshire & Isle of Wight Branch**

Tim Norriss remains as Branch Moth Officer. His new address is:

Tim Norriss, 1, Trelawn Close, Ottershaw, Woking, Surrey, KT16 0LU

#### **Upper Thames Branch**

The Upper Thames Branch now has two Branch Moth Conservation Officers:

Martin Harvey, 10 Kiln Ride, Upper Basildon, Berkshire, RG8 8TA

Martin Townsend, 69 Alice Smith Square, Littlemore, Oxford, OX4 4NQ.

## **West Midlands Branch**

The West Midlands Branch have reorganised responsibilities as follows:

Moth Officer – Worcestershire

Neil Gregory, 6 Thames Drive, Droitwich Spa, Worcestershire WR9 8TP

Moth Officer – Herefordshire

Jeff Andrews, Meadow View, Dinedor, Hereford HR2 6LQ

Moth Officer – Warwickshire

David Brown remains as Branch Moth Officer and is also the County Moth Recorder (for VC38). However, his address has been reported incorrectly in the past. His correct address is:

David Brown, Jacksons Lawn, Charlecote, nr. Warwick CV35 9EW

## **County Recorder for Lincolnshire**

Rex Johnson remains as County Recorder. He has a new contact address. All records should now be sent to:

Rex Johnson c/o Phil Porter, Whisby Nature Park, Moor Lane, Thorpe on the Hill, Lincoln, LN6 9BW

## **Acting County Recorder for Northumberland (VC67 & 68)**

Mr Nick Cook, 31 Lyndhurst Avenue, Jesmond, Newcastle-upon-Tyne NE2 3LJ

## **County Recorder for Staffordshire**

David Emley's address was reported incorrectly in *Atropos* No 7, p. 57. The correct address is:

David Emley, 23, Leacroft, Stone, Staffordshire, ST15 8GF

## **Bibliography**

### **Lepidoptera literature 1999 - Mark Parsons & Nigel Bourn**

This section intends to be a selected bibliography of references primarily of conservation importance or relevance, but also includes some taxonomic works, such as those which may aid identification. This is not comprehensive and it is probable that we have overlooked some references, for example there are many useful articles in the newsletters of local moth groups which have been trawled for the purposes of this summary. If there are any significant oversights, please let us know and we will try to include them in next year's update. Brief notes detailing the content of the reference are given where this is felt necessary. **Unfortunately, we are not able to offer a reference service. The following are listed for information only.**

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