



Borders Newsletter



Spruce Carpet

Issue 2

Spring 2009

Here's the second issue of the local Butterfly Conservation newsletter for people living in the Scottish Borders. It goes out freely to all members of Butterfly Conservation in the region as well as to other groups, agencies and individuals with an interest in butterflies, moths and their conservation. Please pass it on to others and let us know of people who you think should be added to the circulation.

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[All photos are by the authors (but not necessarily in their own articles) apart from the Beautiful Golden Y (Malcolm Lindsay), Cinnabar larva (David Green) and Cinnabar adult (Mark Parsons)]

Please write to us with your articles and views. The next issue will go out in the autumn. Email to me at the above address or by post to:
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Butterfly & Moth Conservation in the Borders

One of the things I often stress is that our organisation - Butterfly Conservation - has as its primary aim the **conservation** of butterflies, moths and their habitats. This may seem pretty self-evident, but it's what makes us different from many other wildlife organisations; it also gives us bigger challenges. So while we have the same tricky job of surveys, monitoring and recording, we must then take all the data and interpret what the results mean in terms of conservation needs. And then there are the actual conservation activities - whether hands-on clearing and planting to improve habitats or higher level stuff to convince politicians and landowners of the need for actions.

Here in the Scottish Borders we are very thin on the ground and I've calculated that if the land area were divided up equally between our members then we'd each have around 240km² to look at or look after. Obviously an impossible task. So what can we do? Answer - lots of things, such as:

- do some targeted butterfly recording to fill gaps in the distribution maps for 2005-2009 (the third five year period of Butterflies for the New Millennium); I can advise on priorities in this area;
- buy a moth trap or borrow one from the branch and do some recording to help boost the local dataset - many 10km squares have only a few species recorded;
- tell BC and others of sites near to you which are important for butterflies and moths;
- alert BC to any threats to these important sites, such as housing developments or changes to agricultural use; don't assume that things will be OK;
- go along to local wildlife field trips organised by BC or other groups, both to learn more and to spread the word on Lepidoptera conservation.

Please get in touch with me or Richard Buckland our Branch Organiser (r.buckland@blueyonder.co.uk or 0131 332 0615) if you think you want to get more involved with activities in the Scottish Borders. And do have a look at the excellent brand new branch website which Mark Cubitt has put together (www.eastscotland-butterflies.org.uk).

Let's hope that 2009 blesses us with good weather and that we can spend sunny days and warm nights discovering more about our local butterflies and moths.

The articles in this issue once again show the variety of what we have on our doorsteps and how the non-expert can contribute to the knowledge on which our conservation work relies.

Barry Prater

Butterflies and Moths on Whitlaw Mosses National Nature Reserve (NNR)

Sarah Eno (Scottish Natural Heritage)

Whitlaw Mosses is a National Nature Reserve in the central Borders, comprising four small, individualistic basin fen or wetland sites - Murder Moss, Blackpool Moss, Bearrig Moss and Nether Whitlaw Moss (not accessible safely) lying roughly halfway between St Boswells and Selkirk.

There are getting on for 200 basin fens tucked away in the “corrugated hills” of the central Borders. They can be easily identified by the mixture of sedge or reed dominated habitats, mossy lawns, willow and birch scrub and sometimes open water. The peripheral slopes often run into species-rich grasslands and flushes. Fen sites can support some very rare or scarce flora and fauna and Whitlaw Mosses is no exception with a number of nationally scarce vascular plants, mosses and liverworts. Over 450 invertebrate species - spiders, water beetles, bugs, moths, flies, butterflies, dragonflies and damselflies have been recorded, some of which are nationally scarce and many are Notable or Red Data Book species.



Well-eye

Moths have been well recorded with 156 species of macromoths and at least 50 micromoths. Most spectacular is the Narrow-bordered Five-spot Burnet *Zygaena lonicerae* which in July can amount to at least a thousand. These are easy to count at the right time because the golden yellow cocoons hang on grass stalks, especially abundantly on the south facing slope of the big island.

So Whitlaw Mosses is not the most rewarding of sites for butterflies. However, it is one of the 113 transects in Scotland and is secure in terms of being counted because Scottish Natural Heritage manages the NNR. The data go to the UK National Butterfly Monitoring Scheme (UKBMS) and therefore contribute to the Millennium or other atlases as well as informing the changes to insect populations. Long data sets such as this one are invaluable in that way. Details of the butterfly species found on Whitlaw Mosses, the site location and their population trends compared to national trends can be found on www.ukbms.org.

Butterflies however, are not exceptional on the NNR. Lying at 270m in an open pastureland, the NNR is fairly exposed with cool winds common and few really sheltered spots. A butterfly transect was set up on one of the four sites, Murder Moss, in 1979. It wanders from the western edge across fen through swamp and wet willow carr, along the peripheral grassland on the north side and over the bigger grassland island.

The transect is walked weekly, weather permitting, from April to September. Over the last twenty nine years regular records for 17 butterfly species have been collected. These are mostly small numbers of the common varieties such as Orange-tip, Peacock, Small Tortoiseshell, Ringlet, Common Blue, Small Heath, Meadow Brown, the three whites and Dark Green Fritillary. Painted Lady is recorded very occasionally. However, high numbers (50+) of Scotch Argus, which breeds on the purple moor grass, can occur in good years. Northern Brown Argus has been recorded on site but is not known to breed since rock rose is not on the Reserve or all that close by, sadly.



Orange-tip

You are welcome to visit the NNR. The easiest sites to visit are Murder Moss, Blackpool Moss and Bearrig Moss but there is little parking. All can be very wet and there are very unstable floating areas of vegetation so stick to the edges of the Mosses for access. The NNR is not suitable for people unable to walk easily. Lindean Loch (Reservoir) has good car parking and you can walk to Murder Moss from there. More information is available on www.snh.gov.uk and you can ring the Galashiels office 01896 757652 for help as well.

Convolvulus Hawkmoths 2008

Anne Patterson (Eyemouth)

2008 was a very successful year for the Convolvulus Hawkmoth. I have been keeping records of the moths coming to my garden for many years and, since 1996, I have recorded this species in varying numbers.

I grow the tobacco plants *Nicotiana* "Sensation Mixed" with their very long trumpet-shaped flowers, to lure the moths - they would not come otherwise. The garden is on the edge of town and near the coast and is full of flowers every year, making it an ideal place for migrants to stop and feed - this species is an immigrant from Europe and Africa. The moths appear at dusk, their seven-inch long proboscis going into the flower head as they hover to get the nectar.



Convolvulus Hawkmoths in action

We observed and caught a total of 59 Convolvulus Hawkmoths during late summer 2008 - a record for us. They appeared on 19 dates between 19 August and 24 September with maxima of eight on both 17 and 21 September. This contrasts with only six being seen in 2007.

Considering the terrible weather last summer it was wonderful that we got any at all.

We go 'on patrol' every night for two hours at dusk and we can 'feel' their presence even before seeing them. When we catch them in our moth nets, we transfer them to clear boxes - the Rocher chocolate boxes are the ideal size as some of the moths are as big as my hand. I measure them, just to make sure that I'm not catching the same ones.

It is a lovely hobby. If you fancy watching a spectacular sight, put one tobacco plant per pot at strategic places in the garden; the rest will happen.

[for more details of Anne's sightings see *Atropos* Vol 9 (January 2000) p53-54 and look out for a sequel in a forthcoming issue of *Atropos*]

Fumbling Around in the Dark - A Beginner's Experiences - Part 2

Roddy McGeogh

In the first edition of this Newsletter I described how I had first photographed and later identified my 'first' moth - which, it transpired, was a Beautiful Golden Y.

I had been struck not only by the startlingly bright marking on its forewing, which gave rise to its common name, but also by the rich warmth of its deep brown general colouration - and the glorious contrast between the two. This, remember, was the moth as seen through the photographer's eye. But the curious naturalist in me had also been intrigued by the creature's reaction to my close approach - the wing vibration which had gone on for at least a minute, in what I later learned (to my relief) was an essential pre-flight routine rather than a forewarning of an impending attack!

Although they were no masterpieces, I returned to that series of photographs several times over the ensuing weeks, wondering at both the delicate intricacy of the moth's markings and general anatomy and also at the mystery of the seemingly hidden world which it inhabited. I wanted not only to learn much more about these curious insects but also to find (and, I hoped, photograph) many more of them. I knew, from several years' experience of photographing the rather larger forms of our local wildlife - from common frogs to grey seals - that I would need to do my homework if I was to have a reasonable chance of securing the images I wanted to capture. But with these subjects there would be an added twist. I would have to learn not only where and when to find them, but also how to go about it! It would not simply be a case of turning up in the right habitat at the appropriate time of day in the most favourable season, sitting down quietly and waiting for something to happen. Not for moths. These, I knew, would be elusive little devils.

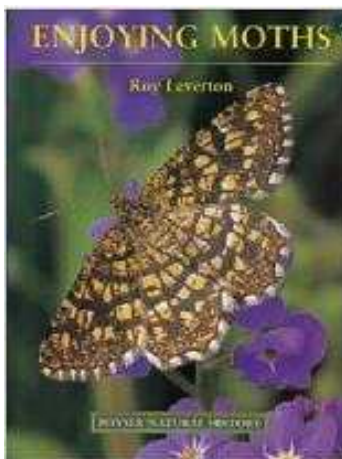


Beautiful Golden Y

And, to begin with, so it was to prove. The numerous guidebooks I had consulted provided me, in varying degrees of detail, with general information - and lots of it - as to distribution, density, flight seasons, larval foodplants and so on. But not one of them went beyond the standard biological data set and offered any practical guidance as to how to improve one's chances of actually encountering the species they so meticulously described. I knew that the larval foodplants might be a good starting point and that it might be possible, armed with the rudimentary knowledge I had gained from the textbooks, to try to 'grow my own' moths from eggs (assuming I could find them). This is a method adopted by some butterfly photographers, anxious to produce pictures of perfect specimens - but it is a practice I have always looked upon with some disdain. Even the notion of perhaps trying to incubate a few of the pupae which I occasionally found while digging in the garden seemed to me like too much of an interference with the natural process - and, in my inexpert hands, would undoubtedly have resulted in casualties. So these uncomfortable thoughts were quickly dismissed.

I had begun to wonder whether I would just need to rely on luck and little more if I was ever to extend my moth list beyond single figures. While out looking for other wildlife (in the limited time I was allowing myself for that) I was already taking more time and care, checking grasses, tree trunks and foliage much more closely than I had done previously, in the hope that they might yield something interesting - but I had met with very little success (generally finding only 'micro moths', or 'little brown jobs' which did little to stir my blood). But enlightenment was soon to be at hand.

It was to come in the shape of the refreshingly positively titled "*Enjoying Moths*" by Roy Leverton, which I chanced upon in a small bookshop/toyshop in the Peak District as I idly browsed the bookshelves while my young son was in the toys section looking to relieve himself of his holiday money.



I knew that had not seen this book mentioned in any of the catalogues I had been accustomed to perusing. A quick look inside the cover revealed that it was newly published (this was in 2001) - so I quickly leafed through it. It had been issued as part of the Poyser Natural History series which, if truth be told, I found a little off-putting as my library already held another couple of books in that series and I had found them both to be as dry as dust - taking the form of detailed biological texts, apparently written by, and for, academics. However, even from my quick riffle through the pages of this volume, it was clear that it followed a completely different style. For a start, it was filled with captioned colour photographs - and good ones too, of live moths at rest in natural habitats - just the sort of pictures I wanted to be taking myself. I quickly read the cover note and came to the passages "*While some excellent identification guides help observers to name the species they find, there are no books about 'mothing'. This book fills that gap.....However, this is no dry academic tome. Roy Leverton conveys his lifelong enthusiasm for moths in an immensely readable, easy-going style, while the text is liberally illustrated....with the author's own superb photographs of living moths*". Sold!!

Now, I am not normally one to judge a book by its cover (either literally or metaphorically) but for me, at that instant, and at that stage in my mothing endeavours, this was as close to a 'Eureka!' moment as I think it might have been possible to come. Happily, too, I was later to find that the book's contents met all of my expectations and much more. While gushing praise is not something I readily engage in, as a rule, I simply cannot commend this book highly

enough. It was really from this point, with the benefit of the advice and encouragement drawn from its pages that my mothing experiences began in earnest.

[to be continued]

Crailing Orchard

John Bathgate & Barry Prater

It was written in the *Gazetteer of Scotland* published in 1806 that Jedburgh was noted for its orchards, the annual average value of the pears alone being estimated at about £300k. It was recorded that, 'Jethart pears' was shouted in the streets of London in the early 1800's and they were used to supply fruit to the London Markets and were even well known in Europe.

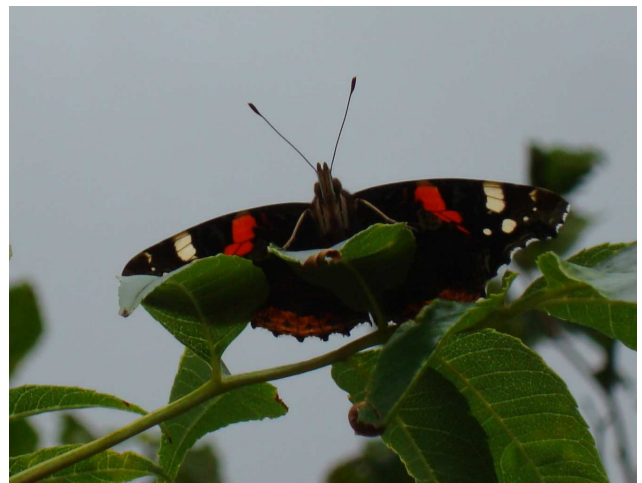
With the increase in larger commercial fruit production over the last century the smaller village and town orchards have been lost or neglected. These orchards often contained rare local varieties of fruit which were once so important to communities and they were also refuges for a broad range of wildlife linked to fruit growing, including Lepidoptera.



Orchard Windfalls

In 2006, with support from the Borders Forest Trust, the Orchard Development Group was able to persuade the owner of a neglected orchard at Crailing near Jedburgh to enter into a long lease and management agreement to restore the orchard to its former glory. One aspect of this is to improve biodiversity within the orchard, relying throughout on input from volunteers. Community engagement with the project is important and it is hoped that a moth evening can be arranged in 2010 which will bring home how valuable such sites can be for moths in our era of intensive farming and precise land management.

Butterflies present in the orchard are mostly the common species, but these include the Red Admiral, which is showing increasing signs of over-wintering in Scotland and so the fallen fruits which this butterfly loves to feed on in late summer are important for improving its chances of becoming firmly established as a resident.



Red Admiral

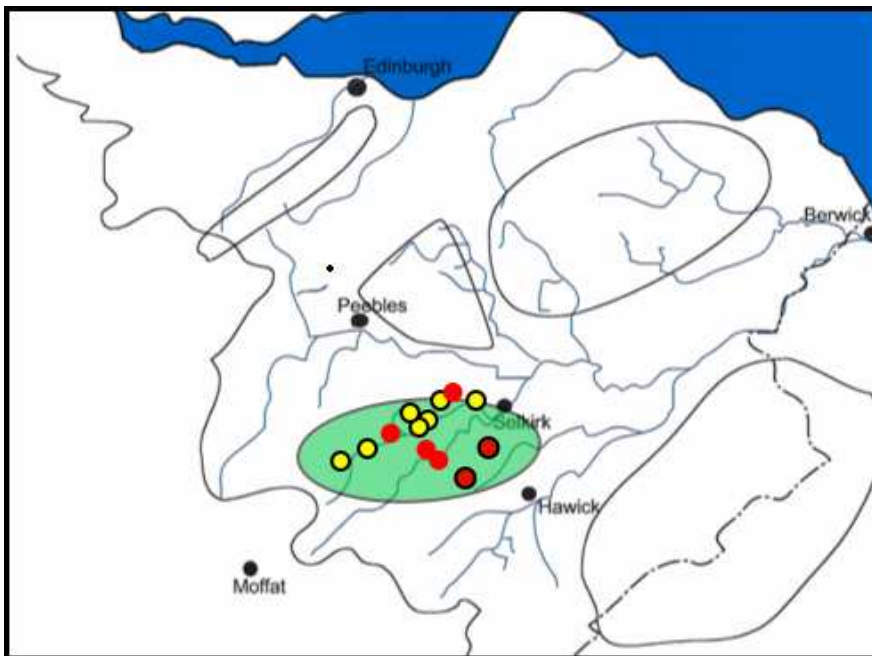
If anyone is interested in helping with this orchard project, which has the ambitious and wider objectives to restore and manage orchards in the Borders as organic, sustainable and not-for-profit undertakings - as well as enhancing their value for biodiversity - then contact John Bathgate (Tudhope Cottage, Lanton Road, Jedburgh TD8 6RY; Tel 01835 862118; e-mail info@orcharddevelopmentgroup.org).

Ettrick Forest Restoration and Butterflies

Richard Buckland

The Ettrick Forest is another of those hunting estates of old with few trees. It encompasses St. Mary's Loch to the west and Selkirk town to the east and has two of the Borders' most attractive rivers running through it, the Yarrow and the Ettrick. In the early 2000s the Ettrick Forest Trust obtained funding from the Heritage Lottery Fund to start restoration work on the Forest. The aim was not, as far as I can make out, to recreate the forest in its original state, but to conserve what is left and to create new areas of woodland to connect fragments of the old forest. The eventual aim was to restore an inter-connected framework of forest fragments which are attractive to man and wildlife alike to create a wilderness area in the centre of the Borders that would play a large part in creating exciting habitats for wildlife of all sorts and hence help to encourage ecological tourism in the Borders.

This was to be accomplished by new planting and building on existing relics of the old forest. These were often to be found in the cleuchs and valleys that run off the hills. So a part of the project is to take the trees further up these cleuchs and to have them meet plantings from the other side of the hill such as between the Yarrow and Ettrick valleys to produce a hilltop canopy woodland. This would be connecting the ecosystems of adjacent valleys and a great validation of the philosophy of the project.



All this is very commendable and very sound biologically. However, Butterfly Conservation has discovered that two colonies of the Northern Brown Argus (a UK Biodiversity Plan Priority Species) have been compromised by tree planting in the area covered by this scheme. The figure shows the area of the Ettrick Forest in green. Inside this are two red dots outlined in black. These represent colonies of Northern Brown Argus that have had trees planted on them, here under the auspices of the Woodland Grant Scheme, which was apparently not used very much for the Ettrick Forest restoration project.

So I have undertaken to identify and record as many important butterfly colonies as possible before any more get covered by trees. The other red dots in the figure show where the old records of this species are and the yellow dots are the ones that I have identified over the last two seasons, records of which have now be forwarded to the Biological Records Centre and so should now be safe from disruption.



Northern Brown Argus egg on Rock Rose leaf

Cinnabar Moth Postcard Survey

Barry Prater



Like many of the commoner moths, the Cinnabar has undergone a long-term decline in recent decades (83% over 35 years, based on Rothamsted trap data) and at the UK level is now regarded as a vulnerable species. It remains widespread across England & Wales, but is much more scarce in Scotland, where it is most often seen in coastal areas. We want to learn more about where it occurs and this is most easily done by spotting the colourful orange and black caterpillars which feed on ragwort leaves, often in such large numbers that they strip the plants completely. The caterpillars can be seen in July and August. The striking adult moth has a long flight season and, because it is easily disturbed during the day and will fly when it's sunny, they may also be recorded during the same period.

Postcards showing both the larva and adult (above) will be widely distributed early in the summer along with further publicity and people are being asked to send in any sightings to me using either the postcards or by e-mail to barry@prater.myzen.co.uk. During 2009 the survey will be restricted to the Scottish Borders region, but if it proves successful then there is the possibility of extending it further north up the eastern side of the country in subsequent years.

Because of the Cinnabar's apparently more restricted distribution in Scotland, the picture here is less clear, but knowledge of its range and where colonies are will be important in the overall conservation of this species. The reliance of larvae on the widespread but controversial plant ragwort, known to be toxic to horses, may raise conflicts of interest, but a very helpful leaflet 'Ragwort Friend or Foe', prepared jointly by Butterfly Conservation, Plantlife and the British Horse Society is available from the BC Scotland page of the main BC website. The leaflet outlines the benefits and problems of ragwort and gives advice on its management.

Readers can help by taking part in the survey, by promoting it in their areas and encouraging others to take part.

Local Field Trips 2009

Date	Event	Details	Contact
Sun. 28 June	Yarrow Valley at Whitehope Burn for Northern Brown Argus	Meet at the triangle park at the junction of the road from the Ettrick valley with the main A708 Yarrow road (NT358277) at 10.30pm.	Richard Buckland, Email: r.buckland@blueyonder.co.uk 0131 332 0615
Sat. 4 July	At Cockmuir in a joint meeting with the Edinburgh Natural History Society to see Large Heath	Meet at end of footpath to Toxside (NT264551) at 10.30 am.	Richard Buckland, Email: r.buckland@blueyonder.co.uk 0131 332 0615
Sun. 19 July	Piper's Knowe Quarry, Chirnside, for Small and Large Skippers and maybe Northern Brown Argus as well	Meet at the entrance to Causeway Bank Farm on the B6437 (NT878590) at 11.00am	Barry Prater, Email: barry@prater.myzen.co.uk 018907 52037

Check the branch website for the latest details (www.eastscotland-butterflies.org.uk)

Butterfly Conservation is a non-profit making company limited by guarantee, registered in England (2206468). It is also a charity registered in England & Wales (254937) and in Scotland (SCO39268).

Butterfly Conservation Scotland can be contacted at Balallan House, Allan Park, Stirling FK8 2QG, Tel 01786 447753.
Butterfly Conservation East Scotland branch: www.eastscotlandbutterflies.org.uk