



DEVON MOTH GROUP

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NEWSLETTER 2013 ISSUE 1 (January)

Happy New Year to all Devon Moth Group members. Let's hope 2013 brings better weather and bumper catches of moths! If you haven't done it already, please submit all your spreadsheets of Devon moth records (macros and micros) to the County Recorder, Barry Henwood barry.henwood@btinternet.com, as soon as possible. If you don't have a computer, we can still accept paper records, thanks to the sterling work being done by Assistant County Recorder Geoff Wisdom. Records are always welcome at any time of year, but if you want your records to appear in the 2012 Annual Report then please ensure that you've forwarded them to Barry by Sunday 20th January 2013. If you are not sure how to submit your records, please see our website <http://devonmoths.org.uk/recording-moths/>

I'd also like to remind you about our AGM and Indoor Meeting on Thursday 31st January in Kenn. The AGM should be fairly brief and not too painful and will be followed by a very interesting talk by Andrew Whitehouse about the charity BugLife and its projects in the South West. Please support the AGM – Devon Moth Group is your society and your views are important. Elections will be held for Council positions, including Chairman. We will also be voting on your Council's recommendation to increase the membership subscription for 2014 (from £6 to £8 for single membership, and £9 to £12 for joint membership). This is the first increase for years and is necessary because of substantial increases in the costs of printing and postage over recent years and the need to maintain reserves in uncertain economic times. For this year, membership remains unchanged – see form in this newsletter.

Happy New Year and happy mothing in 2013!
Richard Fox

Moths in a hedge

Inspired by Jennifer Owen's remarkable book *Wildlife of a Garden*, in which she gives a detailed account of all the species she found in her suburban Leicester garden over a 30 year period, and because it never seemed to have been done before, on New Year's Day 2011 I set about seeing how many species of plant and animal I could find in a single hedge on our farm, which is near Hatherleigh in the heart of Devon. Back then I thought I would do it for a year and then move on to something else. But it has become an absorbing passion, and now, nearly two years later, I'm still at it. I don't think I'll match Jennifer Owen's 30 years though!

The hedge is a typical Devon one – species-rich and set upon a bank. It's 90 metres long. As I write, the species tally stands at 1,899, a diversity which I find staggering. Who would have thought that a Devon hedge might harbour so much life? And there's still plenty more to identify, without even venturing near microorganisms or such things as mites, smuts and rusts. The majority of species are, as might be expected, insects – 1,582 (or 83%). Of these, the two biggest orders are Diptera (true flies), with 796 species identified so far, and Hymenoptera (bees, wasps and parasitoids) with probably an equal number of species although only 100 or so have yet been identified. The high numbers of Diptera and Hymenoptera is to be expected since these are the two most diverse orders in Britain, with some 7,000 species of each known.

Then comes the Lepidoptera (moths and butterflies), with 445 species found at the hedge. 157 of the moths have been micros – I suppose I ought to include butterflies (18 species) in with the micros, if the molecular evidence provided to us by Malcolm Scoble in his most-interesting recent talk to DMG stands the test of time. That leaves

**Members of Council: Richard Fox, Chairman; Roy McCormick, FRES, Secretary/Treasurer;
Rob Wolton, Conservation; Nicola Bacciu, Membership & Distribution; Barry Henwood, County Moth Recorder.**

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270 macros, including pyralids (22), swifts (2) and burnets (1). It appears I've found 17% of the 2,570 species of moth and butterfly recorded in the British Isles at my hedge. Given the huge numbers of parasitic wasps (ichneumons, chalcids, etc) it's a complete wonder to me that any moth egg or larva survives at all.



The Small Brindled Beauty *Apocheima hispidaria* moth (above) was one of several caught in an actinic trap tucked into the base of the hedge in February 2011, a species I had not seen before on the farm and seldom recorded in north Devon. The female Muslin Moth *Diaphora mendica* (left) was discovered in the hedge one May day – I have never caught females of this species at light.

The two other numerous insects orders in the hedge are beetles and bugs, with about 100 species recorded so far of each. Perhaps not surprisingly given the wetland conditions that prevail over much of the Culm where we are, the diversity of caddis-flies has been high, with 34 species found.

How have I discovered all this life? The moths and caddis have been relatively easy – by light traps tucked in right at the base of the hedge, or by searching for micro larval feeding signs such as mines. Otherwise my main methods have been either by careful searching, by sweeping with a hand net or by using a Malaise trap. This last is a very effective tent-like device (see image right) for catching flying insects (other than moths – the only two I catch regularly in this trap are Silver Ys and *Anthophila fabriciana*).

The big question is, how many of these species are actually using the hedge? I've been careful to record only ones seen or caught within two metres of the tips of the shrubby branches, but even so, could many just happen to be found while moving through the landscape, or even be impeded in their travels by the hedge? While I have seen the occasional large white butterfly fly directly at and over the hedge, the great majority of mobile species appear to welcome its presence. This is borne out by a number of studies, a couple of which I heard about at a European hedgerow conference in September. One showed that bumblebees use hedges as navigational aids, and the other found that many more moths fly close to a hedge than further away, and that of those flying within 1 m of the hedge, 67% were flying parallel and just 6% at right angles to it, a highly significant difference. My belief is that the great majority of animal species I've recorded are actively using the hedge, if not for feeding or breeding, then for finding mates or for shelter or protection, or perhaps, as with strong fliers such as the bumblebees, and bats too, as safe paths through the landscape.



To try and gauge just how many species breed in the hedge, this spring I put up six emergence traps along its length. These are simple domes made of fine mesh (see image above) which prevent any emerging insects from flying away. Each covers half a square metre of ground. About 150 species have been found in this way, pretty

impressive for such a small area. (I say about 150 because I've yet to complete the analysis.) Most are flies, with just a handful (11 species) of moths, although these included one I've always wanted to see, number 1 in the checklist, the primitive micro *Micropterix thunbergella*.

I am hugely indebted to many experts for help with identification. In particular, for moths, I would like to acknowledge the great help given to me by Bob Heckford. Ian Wallace at Liverpool Museum very kindly identified all my caddis.

If nothing else, this project has helped me develop my natural history skills and found quite a number of species not previously found in the vice-county or Devon, including four micro-moths (none of them rare, just difficult to identify and under-recorded). But what I really hope is that it helps to highlight just how very important the humble Devon hedge can be to wildlife – I expect that once all the specimens currently with experts have been identified, over 10% of all 24,000 insects recorded in Britain will have been found to be using this hedge, even though it occupies a trifling 0.06 ha (one seventh of an acre) of land. The reason we see so little of this treasure trove is simply that we are too big – to be ant-size would be just about perfect!

Rob Wolton

Moth identification by dissection workshop

On Saturday 1 December, Bob Heckford, Stella Beavan and myself ran a workshop to introduce members to the dissection of moth genitalia. We were privileged to use the Devon Wildlife Trust's excellent facilities at Woodah Farm. We had a large room with tables and chairs and electrical sockets in the floor. There was also an electric hob, kettle and even a laptop and projector so that we could project the Dissection Group website (<http://www.dissectiongroup.co.uk/>) onto the wall. Thus photos of the genitalia of a large number of species could thus be accessed. Bob and Stella arranged a camera on top of Bob's microscope to be connected via Stella's laptop to another projector (kindly loaned by Butterfly Conservation, Devon Branch). Thus our own microscope slides could also be projected.

Ten Devon Moth Group members attended to learn the technique. We used almost exclusively Noctuid moths on this occasion as their comparatively large size made it easier for first attempts. Some very good slides were made and it was fortunate that amongst the *Mesapamea* males dissected we had a *secalis* (Common Rustic) and *didyma* (Lesser Common Rustic). Many of the participants will want to continue to dissect at home, so will now need to buy all the paraphernalia and practise.

We intend to run further workshops in the future which may deal with smaller moths such as the pugs and micro-Lepidoptera. If anyone who did not attend on 1 December is interested in learning how to dissect, please let me know, so that future workshops can be planned accordingly.

Barry Henwood



Devon Moth Group Christmas Dinner 15th December 2012

Sixteen members and partners attended the annual Christmas Dinner at the Highwayman's Haunt, Chudleigh. Members were attracted from VCs 3, 4 and even VC 1. Unusually there were no representatives from VC 2 this year. We had a very pleasant evening starting with pre-dinner drinks and chat. We were split between two tables for dinner with some migration between tables after the main course. Following the meal, numbers dwindled with seven of us remaining for further socialising and drinks in the bar afterwards.



Moths did not completely dominate conversation. I had brought along some cut lengths of Alder Buckthorn stems with curious incomplete rings of bark having been removed by something. These signs were abundant where they were found on Dartmoor. An interesting debate followed throughout the evening with no firm conclusion as to even whether they were caused by a vertebrate or invertebrate. Inevitably field work is needed!

We all enjoyed each other's company, but it was a particular shame that Roy (who had undertaken all of the organisation of the event) and Mavis could not be there.
Barry Henwood.

Health and Safety of mercury vapour bulbs

During the summer I had an incident when one of my bulbs exploded, although fortunately no-one was near it at the time. The top of the bulb was found a few metres away. Although the night in question was completely dry, the bulb had been exposed to some rain a few nights previously. I suspect that it had cracked then and the exploded as it heated up the next time it was used.

I have devised a simple rain shield for use with my wooden Skinner traps. It is a 5L water bottle bought from a supermarket with the top cut off and two opposite sides cut away, although not quite to the bottom of the bottle. The whole thing is then turned upside down and held onto the trap by Velcro. I used superglue to attach the Velcro to the water bottle, holding it in a vice until set. I also then stapled the Velcro to the bottle. Although this shield would give only limited protection from an exploding bulb, the main purpose is to protect the bulb from rain, thus preventing damage in the first place. The Velcro attachment makes it quick and easy to fit.

I encourage members to do the same or similar, thus much reducing the risk of an accident to yourself or anyone else around your traps. Why not set about making something now in the winter, before the moth season starts again?

Barry Henwood



Forthcoming events

Saturday 26th January 2013, National Moth Recorders' Meeting at Birmingham & Midland Institute, Birmingham. There is still time to book for this national event (http://www.mothscount.org/text/54/national_conferences.html). The cost is only £5 per person, payable on the day, including refreshments and a buffet lunch. Advanced booking is essential, however, via info@butterfly-conservation.org or 01929 400209.

Thursday 31st January 2013, AGM and indoor meeting at the Kenn Centre, Kenn (www.kenncentre.co.uk). Our AGM will take place at 20.00 and will be followed by an illustrated talk by Andrew Whitehouse, South West Manager for the charity Buglife entitled *Buglife in the South West*.

Thursday 28th March 2013, indoor meeting at the Kenn Centre, Kenn (www.kenncentre.co.uk) 19.30 for 20.00 start. Illustrated talk by Barry Henwood, Devon County Moth Recorder, entitled *Garden Moths*.



Feathered Brindle (Phil Barden)



Membership subscription for Devon Moth Group

Membership subscriptions, **£6.00 for single and £9.00 for a family annual membership**, are due by the end of February 2013.

Name: _____

Address: _____

Email address: _____

Phone number: _____

I am happy to receive Devon Moth Group newsletters by email.

Please return with a cheque payable to Devon Moth Group to: Roy McCormick, 36 Paradise Road, Teignmouth TQ14 8NR.

For payment by Standing Order, please obtain the necessary form from your Bank. The account details are: **Devon Moth Group, A/C No: 94850593, sort code: 60-21-47 at NatWest Bank, Den Road, Teignmouth, TQ14 8AR.** Make the reference your own name as that will then be shown on our statements. Payment date is 1st January 2013, or a date soon after that, and 1st January from then on.