

# Lancashire Moth Group Newsletter

## March 2015

### Introduction Pete Marsh

First of all, scientific names have not been used unless necessary (e.g. micros) to save space. What a great effort from everyone in 2014! The most fascinating aspect for myself was the emphasis on day/dusk searches for either larvae or adult moths and we have all learned a great deal from , for example, various communications from Brian Hancock, Steve Palmer, Justine Patton, Ben Smart and Graham Jones. It is one thing reading about them in books and magazines, but when the strategies are brought “to your doorstep” in VCs 59 and 60, the motivation to ‘go find’ must be enhanced.

Communicating patience and successful observation to, for example, the hordes racing between hides at bird reserves with blinkers on, is a challenge. I remember having the privilege as a youngster of accompanying Arthur Watson and marvelling when he casually noticed a Grey Chi perched on a limestone stone wall out of the corner of his eye and went straight to a Puss Moth larva after a casual glance at a willow bush. In later years, it was a privilege to accompany Jennifer Newton and in both cases it was all about taking your time, looking for signs (e.g. rolled up leaves on a bush), checking things you did not know and building up the necessary skills to perhaps deserve the title of ‘competent field naturalist’

This approach all got a bit lost in my case in the days of cheap fuel and chasing around the country or catching cheap flights to western Ireland after new species of bird or ‘targeting’ the likes of Silver Spotted Skipper on ‘a steep slope down south’. Many people are now ‘slowing it down’ and have concentrated on a smaller, more local area and this has been accompanied by a greater attention to detail, embracing all kinds of plants and animals. The Wildlife Trusts, for example, have recognised this and our local trust has a ‘biodiversity manager’ with a remit to encourage and train a whole new generation of skilled naturalists.

Hopefully not many of you are like me with poor close eyesight and limited to the Cinnabar larva level of observational skill – I am banned from the Belted Beauty site as size 15 wide boots and poor close eyesight are a recipe for imminent extinction. However, it is sometimes just a case of covering as much ground as possible and the “obvious” will appear in front of even poor eyesight. That happened to me on 10th June 2014 with a Small Argent and Sable colony along a regenerating- conifer plantation path with plenty of heath bedstraw

These are a few of the likely day-search adult moths where there are quite a few gaps on the local VC maps. Even

the burnet moths (Narrow-bordered five and six-spot) are under-recorded, as they can be awkward to specify

**Orange Underwing** Crane your neck checking the tops of birch trees in sunny weather from mid-March to early/ mid- April. It can sometimes be hard to ‘time’ as depends on the early spring weather. Check lowland as well as valley-side and look up at ‘any’ birch, even at unpromising sites e.g. one Claughton Brickworks car park in 2014

**Emperor Moth** Whizzing around moorland and moss-land in April/May. Can be identified by the two-toned appearance of the males, even rapid glimpses can be confidently identified (grey forewing, gingery hindwing). A pheromone now available.

**Fox Moth** As above habitat-wise and behaviour but generally slightly later and ALL ginger in appearance. Be careful with Oak Eggar males later in the emergence period

**Small Argent and Sable** Check rides in regenerating conifers which are receiving plenty of sunlight and house heath bedstraw. 2014 record suggests early/mid- June (not later)



**Small Argent and Sable**

**Chimney Sweeper** Seems to be pretty widespread wherever there is unimproved grassland/open woodland containing pignut and in the north-east of the county, at least, it is regularly seen on roadsides. A classic example of a species you forget to write down and a good reason to keep a notebook at the ready at all times. Mainly June-early July

**Wood Tiger** A thinly-distributed species on the heather moorland areas and mosses. Late May onwards

**Currant Clearwing** Find your local allotment and ask permission to check any bushes. Contact Graham Jones at [gra\\_ham\\_jones@yahoo.co.uk](mailto:gra_ham_jones@yahoo.co.uk) who is coordinating clearwing searches and one of us may be able to visit with a pheromone lure if you can arrange this and the site looks promising. Also possibilities in old orchards etc.. The peak emergence is at the end of June

There are loads of other species you are likely to find during the daytime and this does include the well-recorded limestone areas around Silverdale/Warton area where Small Purple-barred may still be present in some hitherto obscure nook in very low numbers

Thanks to all the contributors to this Newsletter. I hope you all find these useful and look forward to at least half a dozen key finds before our next Newsletter, providing the mothing weather is kind!

Last, but not least, thanks to Dave Bickerton for compiling and editing this newsletter.

## The Vapourer (*Orgyia antiqua*) – an under-recorded species? Stephen Palmer

A quick look at the distribution map for the Vapourer moth in Lancashire shows that it is a widespread species throughout lowland and upland areas in the County, but how many of you have ever encountered the moth in your light traps? It appears not that many and certainly not with any regularity; so where are these records coming from?

It has a very distinctive larva with four tooth-brush-like bristles just behind the head that feeds in the summer. These can be found on many garden and hedgerow shrubs and trees including rose-bushes, so one would suspect these would be widely reported. Out of well over 400 records on the county database only around 25 are larval records.

It must therefore be the wingless female that is being found on branches laying eggs. On emergence she rarely wanders any distance, usually sitting on her cocoon and relying on the release of a pheromone to attract males.

However looking at the records there are only a very few of females.

The answer lies in the habits of the males - about two-thirds of the records relate to the moth being seen in flight during the day. August and September are the best time to look out for this species which usually flies well above head-height through gardens and close to woodland and hedgerow edges with a rather erratic but speedy flight. The distinctive orange-brown colour and height of flight mean it can be identified without a close look and the only confusion species is reported to be the Brown Hairstreak butterfly, so no problems with the identification in Lancashire.

There are large gaps in the known distribution of this species in the county, so as mid- to late summer arrives cast your eyes upwards when out walking or in the garden. The orange-brown moth following the tree line can be noted down and yet another 2km square can be added to this widespread but infrequently spotted moth.



## Macro-moth Larvae Field Tips

### Ben Smart

There are some macro-moths which may be easier to find as a larva than an adult. The two species below are examples of this. They may not be particularly attracted to light or may simply choose not to wander far from their foodplants.

#### Barred Rivulet



To find this larva, pick stems of Red Bartsia in early September. Place them in a large plastic tub, lined with paper. Leave in a cool spot indoors. After a couple of days carefully lift each stem individually and see if there is any frass (droppings) on the tissue paper below. If so, there is a larva present and careful examination should enable you to spot it. It may be inhabiting a flower head. Transfer this stem and larva (and any others you may find) to a smaller air-tight pot. Add fresh foodplant every few days

and remove any frass. Remove the old stems when dried out, taking care to ensure there are no larvae on the stem.

Towards the end of the month, place the larvae and fresh stems into a plant pot half full with sterile soil and covered in stocking material. Keep the pot outside in a shady, sheltered spot and wait patiently for the adult to emerge. It may take five years. Mine took two years to emerge.

The species can be recorded from the larva alone, even if the adult does not emerge.



#### Chamomile Shark



To find this larva, look on flowerheads of mayweed in June-July, often on waste ground. You may find a small, green, beautifully patterned larva curled up in the middle of the flowerhead. This larva can be present even in areas where the adult is rarely seen as it does not easily

come to light. The larva is also much more distinctive than the adult and easily identifiable. Easier and quicker to rear to adult stage than the Barred Rivulet.

Probably placing full grown larva and foodplant on top of soil in a container in a cool, dark spot such as a garden shed is adequate. Make sure the overwintering container is not air tight. I use the plastic containers designed for insects sold as reptile food. These have lots of small holes along the sides.



## A very modern environmental battle (green against green)

### Steve Palmer

Back in late 2012, DONG Energy, a Danish company, made an application to run a set of power cables linked to a proposed offshore wind farm through the saltmarsh north of Sunderland Point, near Potts Corner. This came as a real shock to those who walk this windswept coastal strip, best known for its unusual saline plant communities, flocks of over-wintering wading birds and bleak beauty. In fact it seemed to be the most unlikely of localities to be threatened by any kind of modern development.

As well as its status as a Site of Special Scientific Interest, this dynamic location also happens to be home for the last viable colony of the Belted Beauty in England. The importance of the whole area for this moth had first been appreciated in 2002 but there were intriguing earlier sightings going back as far as 1975. Surveys of the moth since 2002 were more for enjoyment than any other reason and the main concern for its future had always been the predicted rising sea levels as a result of global warming. Anyone out looking for the moth would have perhaps been gently nudged along by the small herd of cattle that regularly graze the marsh or been startled by a Snipe exploding up from their feet and zig-zagging away across the marsh. Fortunately Mark Parsons, head of Moth conservation at Butterfly Conservation, suggested starting regular transect monitoring to judge how the moth was faring in a more organised and scientific fashion - this began in 2008.

The original proposal by DONG Energy was to dig a series of up to five deep trenches across the centre of the marsh - it was plainly seen by them as the cheap and easy option. However, following three long years of objection and negotiation by members of the Lancashire Moth Group (LMG) and Butterfly Conservation (BC), DONG may have, with hindsight, wished they'd looked for an alternative route. Despite our best efforts, the Secretary of State approved the application in late 2014 but with provisos. The first good news was that there was only now a requirement for two cables and, as a result of our objections, these would be pulled through pre-drilled underground drilled tunnels at the extreme northern edge of the Belted Beauty colony. We saw this as a significant victory for the moth, but that doesn't bring this story to a close.

During the negotiation process, DONG Energy had agreed to implement a moth translocation programme in the areas above the cables in case any fluid break-out

occurred during the drilling phase (which will commence in early 2016). Additionally they agreed to organise an independent monitoring programme over several years to make sure there are no negative impacts on the moth near the cables from any fluid break-out. The agreement between BC, the LMG and DONG also states that no vehicles, equipment or people will route across the marsh during the construction process unless a fluid break-out occurs.

DONG argued throughout the application and approval processes that they saw no other potential impact on the moth other than the fluid break-out during construction. Although underground cables should present minimal problems in theory we wanted to be sure that there would be no longer term detrimental effects. We were extremely fortunate to be offered help and expertise by Alan Bedford to monitor ground-level temperatures over two areas – one over the proposed cable route and one off-set to the south with the kind permission of the land-owners and Natural England. By the time the development starts we will have at least two full years of continual temperature data before the electricity starts running through the cables. This, combined with the moth transect data, will hopefully allow us to ensure DONG Energy's negative impact theory is correct. If not then this battle will be set to run and run.

Hopefully the Belted Beauty will continue to thrive on this wind-swept stretch of Lancashire's beautiful coast-line. If it does, the considerable time, expertise and financial commitment given by Butterfly Conservation and in particular their head of Moth Conservation, Mark Parsons, will have played a major part in saving this rare moth. Please consider joining BC to help support their tremendous work in protecting our Lepidoptera. Their website <http://butterfly-conservation.org/> gives more details on how to join.

## BAP Species Update

### 2015 Belted Beauty Annual Survey Saturday 11th April (10am)

The meeting commences at the Potts Corner Car Park (SD413571) at 10am.

Come prepared for cold, wet and windy conditions although occasionally the sun has been known to shine! Waterproof walking boots or wellies are advised. On unpredictable occasions a car park charge has been levied but is unlikely to exceed £1.

The survey has to be planned well in advance to take into account tides and print deadlines but it will go

ahead regardless of weather. It should be borne in mind that the moth's emergence can vary considerably from year to year and there is no guarantee the moths will be seen but it is rare for us not to at least find a few at this time of year.

Organiser Steve Palmer -

s.palmer12@btopenworld.com

### Netted Carpet Summary 2014

The annual Netted Carpet larval survey at Hying Scout Wood took place on 31st August. 146 larvae were recorded along with 271 Touch-me-not plants, which is a considerable reduction from 2013, when 271 larvae and 4800 plants were recorded. This constitutes a 53% reduction in larval numbers and a 75% reduction in plant numbers.

The relatively dry, warm, summer is likely to have had the greatest impact on plant, and in turn, larval numbers. Ironically, Netted Carpet is one of the few moth species that benefits from cool wet summers, but both plant and moth do respond well when conditions allow, and

a wetter spring in 2015, could potentially see numbers recover.

Habitat Management is always the key to ensuring that Netted Carpet and the foodplant have the best chances of enduring environmental stresses, which ultimately help to provide the right conditions for a resilient long term population, and we continue to work with Woodland Trust to encourage as much direct management that would favour Netted Carpet as possible.

Graham Jones

### Barred Tooth-striped

The time for further searches for this BAP species is imminent. In 2014, considerable effort, both daytime and using an overnight actinic, was made by Justine Patton on Warton Crag. This revealed newly-emerged individuals at the base of small/medium ash trees with no wild privet to be seen in the immediate vicinity as it tends to prefer more open situations on (at least) Warton Crag. Ash was the dominant tree in this area but moths were also found resting on elm (e.g. Clouded Magpie records from same area), The presumption is that the larvae were feeding on ash and descending to the ground and pupating but sometimes the most convenient tree to climb up and dry wings was an elm.

It would be really good if other limestone areas supporting ash trees - there are plenty of them received some checks in 2015. Justine Patton is coordinating this species (justinep@hotmail.co.uk) and will almost certainly be initially searching known sites to confirm the emergence period and would welcome contact from anyone interested in searching. The problem with this

species is pinpointing the exact time to look for newly emerged individuals. In 2014, this was at the end of March/early April.

A very high concentration was found an actinic trap in an area of limestone pavement covered in small ash trees (and again no privet). Steve Garland's trapping site on Dalton Crag was also privet-free. It may be worth using the strategy of leaving actinics out at likely sites, but this is fraught with danger unless they are well off the path and set and collected as late/early as possible. Both the Silverdale/Warton/Yealand AONB and the Dalton Crag area are full of small paths and lack of caution could see at least the battery going for a walk. Finding the larvae on ash is another challenge - how high up the tree area they!

## Macro-moth Highlights July - December 2014

### Pete Marsh

This was a rather impressive period with lots of settled weather right through until October and some excellent moth trapping nights and perhaps even better weather for daytime and dusk searches. By far the easiest way of sorting these sightings was to follow the Bradley and Fletcher sequence per month, so please excuse the dates jumping about through the month. A few of the July records were also included in 'stop press' in the previous newsletter.

There are likely to be a few records missing as MapMate, whilst an excellent recording system, is not always perfect with 'synches'. Please let us know if you think you have records of selected species which have been missed - implying that a whole 'synch' may not have been imported

The following highlights have primarily concentrated on adult moths recorded by various people throughout the two VCs. Please remember that larval records are really valuable, not the least because they indicate a breeding site. Thank you for providing the material for this report which has had to be extremely selective and it is a testament to your great effort, and Graham for acting as Mapmate 'hub', that this section of the Newsletter took "ages to extract records and compile" - let's hope the two 2015 recent sightings reports take even longer!

### July

The usual annual search for **Pale Eggar** on Leck Fell/fell short of expectation this year with just two (19th) and this may have been an ongoing legacy of some unsuitable conditions for a number of moorland species (e.g. Fox and Emperor), possibly still related to the 2012 summer months, but possibly another weather-related reason. The appearance of a trickle of **Oak Hook-tip** in the Yealand and Silverdale areas (Mike and Joyce Clerk (MJC), Sylvia Stokes (SS) and Brian Hancock (BH) as well as in VC59 also served as a reminder that records of the similar **Barred Hook-tip** seem to have dried up. These were formerly recorded from quite a wide range of northern sites and some specific targeting of old beech stands would seem appropriate for this and a few other possibilities. The localised **Clay Triple Lines** produced a nice National Moth Night (NMN) record on Warton Crag (3rd - Justine Patton (JP) and equally local double-brooded **Small Blood Vein** put on a good show in the Southport/Ainsdale/Formby area (Richard Walker - RW, Ron Moyes - RM, Alex and Shelagh Parsons -A & SP) and also in a Hale garden (Carol Cockburn - CC).



**Oak Hook-tip**

The rather sporadic **Mullein Wave** made its first appearances at Morecambe Westgate on 11th (JP) and Yealand Redmayne on 12th (SS). **Lesser Cream Wave** appears to be a highly localised denizen of the mosses in the Silverdale/Yealand area, notably White Moss and this year there were welcome records from Hawes Water on 3<sup>rd</sup> (BH) and two on Silverdale Moss RSPB on 4th (JP). The only **Plain Wave** located on the database were three around Formby (RW) and one from Rindle Wood (Ian Walker - IW).

Back on the moors again and **Red Carpet** was very tricky to find this year and needed an actinic on the rocky slope below Gragareth to produce a couple and these were accompanied by an even more welcome two **Galium Carpet** on 19th (Pete Marsh - PM). **Large Twin-spot Carpet** just creeps into our area and two were recorded at Flixton on 17<sup>th</sup> (K McCabe - KMcC). A **Beautiful Carpet** was a nice surprise at sheet and light at Hying Wood, Yealand on 18th (John Girdley - JG et al) and other records included three at Formby (RW, RM) and one at Rindle Wood on 20<sup>th</sup> (IW). **Dark Spinach** is an elusive waste-ground species which seems to be exclusively near-coastal in recent years and one found its way into a garden near Morecambe Football Ground on 17<sup>th</sup> (JP). It is, however, regularly recorded in the Formby/Ainsdale area. **Striped Twin-spot Carpet** is common on the limestone pavements of e.g. Warton and Dalton Crag and this year it was found to be the



**Beautiful Carpet**

commonest moth in an actinic on the scree slopes below Gragareth, Leck Fell, at the end of July/early August with up to 25

One of the seriously declining 'garden geometers' is **The Spinach**. You have to be very careful at your garden trap as it has become so rare that the abundant and superficially similar **Northern Spinach** wandering off the moors is more likely. All three VC 60 records were from the West End of Morecambe in early July (JG) and VC59 comprised records from Flixton (KMCC), Chorlton (BS) and Fazakerley on 6<sup>th</sup> (Les Ward – LW). Of the localised carpet moths restricted to the limestone areas around Silverdale/Warton/Yealand, **Netted Carpet** is subject to a separate article. **Pretty Chalk Carpet** was recorded from two new sites: Silverdale Moss on 15<sup>th</sup> (JP) and Yealand Conyers on 18<sup>th</sup> (BH) and **Barred Carpet** was found widely and sometimes in large numbers with 26 at sheet and light at Hyning Wood on 3<sup>rd</sup> (Jean Roberts - JR et al). **Scalloped Shell**, a moth never recorded by the author (!), was typically scattered and elusive in singletons apart from the hotspot at Altcar Rifle Range with 6 in two traps on 4<sup>th</sup> (RW, RM). **Brown Scalloped** provided an unexpected record outside its core range at Docker Moor (14<sup>th</sup>) as well as within its core range at Yealand Conyer's on 9<sup>th</sup> (BH), and its congener, **Dark Umber**, provided three records; Gaitbarrows, Warton Crag and Yealand Conyers



**Spinach**



**Northern Spinach**

Ben has kindly flagged up some larval search strategies in this Newsletter and one of the chosen species is **Barred Rivulet**. A 'one-off' trap in a Heysham Head Garden produced six on 21<sup>st</sup> (JR et al) but it was otherwise very elusive, including even an established site at nearby Heysham NR. VC 59 records were similarly sparse but included two well-inland sites at Worsthorne on 16<sup>th</sup> (Graham Garvaghan – GG) and Chorlton on 29<sup>th</sup> (Ben Smart – BS). So please look for your local Red Bartsia, often found along the "semi-scuffed" edges of footpaths!

**Bordered Pug** used to be a regular feature at Heysham Nature reserve, but seems to have virtually disappeared from VC60 with a scattering in July in VC59 from Great Sankey on 24<sup>th</sup> (Joy Mitchell-Lisle (J-ML), Berry House Barn on 17<sup>th</sup> (Steve Priestley - SPr) and a few from the Southport/Formby area. **Triple-spotted Pug** along the footpaths around Lord Lot's Wood was the penultimate search and find of Brian Hancock's successful strategy on 16<sup>th</sup> & 21<sup>st</sup>. I've also included **Tawny Speckled Pug** in the selection as this has declined considerably in the last twenty years with just low single figures of records in 2014.

Tony Moverley spent some time searching for **Manchester Treble Bar** and was successful with a lot of micro-sites within the two known general areas around Little Anne/Loftshaw Mosses and Blaze/Holdron Mosses. **Blomer's Rivulet** was very easy to find this year in the Hyning Wood/NE Warton Crag areas and the known range was extended to the RSPB Silverdale Moss on 4<sup>th</sup> (JP). **Dingy Shell** lends itself to the words 'unobtrusive' and 'elusive' in VC60 and a National Moth Night record at sheet and light at Furnessford Bridge was cause for great rejoicing on 4<sup>th</sup> (PM) with the other records from the north Preston area (A Powell – AP and SP). This species is, however, 'no big deal' in VC59 with plenty of records!

We are increasingly becoming *the* stronghold for a nationally rapidly-declining species, the **V Moth**. Most of the national decline is attributed to garden practices with e.g. currant bushes, but in this area it is seemingly most



**V-Moth**

likely to be found in the orchard at Leighton Moss or in the woodlands or nearby gardens around Warton (17 in one garden – PS), Yealand Redmayne and Conyers (Leighton Moss team (LM), SS, BH). There was quite a flood of records from Briercliffe and Worsthorne in the earlier 'noughties' – is it still in that area? **Lilac Beauty** is a nice one to score on National Moth Night as per an actinic at Warton Crag SE on 3<sup>rd</sup> (JP) with other records from Hyning and (the top site), Millhouses.

The **Annulet** is really elusive and the only records were from Gaitbarrows with 4 on 25<sup>th</sup> (S & CP) and (in 2013) at Plain Quarry. Does it occur in the lower Leck valley and other limestone sites? **Vapourer** records in VC60 comprised a moorland individual at Crossdale Grains on 31<sup>st</sup> (Tony

Moverley -TM) and around Steve Palmer's house - prompting the short article by Steve elsewhere in the newsletter. VC59 records comprised a concentration of day-time observations by KMcC at Flixton and a light-trapped individual at Great Sankey (JM-L). **Round-winged Muslin** continued its regular presence in the far south at Great Sankey (JM-L)

Hot on the heels of the Heysham individual (see last newsletter & pic) came another light-trapped **Crescent Dart** on 29<sup>th</sup> at Swinton (Geoff Riley – GR). **Heart and Club** is common in coastal VC59 and around the Carnforth area, but very thin on the ground between the two, perhaps surprisingly at coastal sites, and 2014 records from actinics at Middleton NR suggest it is perhaps overlooked along these intervening coastal areas (JP).



**Annulet**



**Barred Chestnuts**

**Barred Chestnut** is a species which seems to be gradually increasing its range and abundance. It has only recently turned up at the previously well-recorded Millhouses, seems to be common on at least the higher parts of Warton Crag and was similarly regularly encountered during intensive coverage of Docker Moor in 2014. It is one of these species which is easy once you have your eye in, but isolated claims can cause problems, so please remember to photograph any away from the far north of VC60. **Portland Moth** seems to be exclusive to the Southport/Formby area these days and 16 individuals included 6 on 5<sup>th</sup> (RW)

A group of related noctuids, which are perhaps most likely to appear in coastal garden traps are **Broad-barred White**

(Morecambe west end on 20<sup>th</sup> - JG), **Campion** and **Tawny Shears** (e.g. Heysham Road - John and Betty Holding -J & BH). **Campion** is a bit more widespread, but nowhere near as common as it used to be in VC60 with a record from a moorland edge site near Dolphinholme on 10<sup>th</sup> (Nigel Rogers - NR) notable. Indeed the only site producing any numbers appears to be Great Sankey in VC59 with 17 individuals (JM-L). The similar **Marbled Coronet** was again mainly coastal with the hotspots being Sunderland and Carnforth (four on 8<sup>th</sup> - Liz Lyon – LL)

Neither the early-year **Chamomile Shark**, nor the later **The Shark** are doing particularly well at the moment - the latter used to be a regular 'garden trap' species and one at Heysham Road on 3<sup>rd</sup> was notable (J & BH). Another species which is very elusive in VC60 at present is the **Olive** with records from Lightfoot Green on 17<sup>th</sup> (S & CP) and by Morecambe Football Ground (JP)....plus one at Fulwood in August (AP). The only areas producing any numbers were around Formby/Ainsdale (RM, RW) and Great Sankey (three in garden trap – JM-L)

An unobtrusive salt-marsh specialist and therefore under-recorded in habitat which does not lend itself to overnight traps is **Crescent-striped**. There was the usual scatter from the Sunderland trap but it needed an actinic at Middleton to be located right on the shore to produce one on 15<sup>th</sup> (JP). Another coastal species, **Shore Wainscot** is highly restricted, but numerous where present around Ainsdale/Formby

The only **Confused** this year was from Leck Fell House on 19<sup>th</sup> (PM) - do double-check any rather late-season "Dusky Brocades", especially, it seems, from moorland/moorland edge sites. Ear moths are all being 'agg'-ed these days as the formerly "safe" upland **Large Ear** have been found to include some (gen det) **Crinan Ear**. Even lowland areas have been proven to include all four species. There were no **Crinan** identified in 2014 but other examples included **Saltern** at Middleton on 15<sup>th</sup> (JP) and multiple records from coastal Bolton-le-Sands including 7 on 24<sup>th</sup> (Steve Garland - SG) and **The Ear Moth** from Trowbarrow on 23<sup>rd</sup> (JG and Claire Ward - CW). **Brown-line-bright-eye** is really scarce these days with two at Great Sankey notable, once the obvious typo possibility was checked! (JM-L) . The elusive **Suspected**, another moth the author has never taken, was recorded in numbers only at Rindle Wood with 6 in early July (IW)

**Small Rufous** seems to be undergoing a bit of a population explosion having first appeared at Sunderland in numbers in the last three years (e.g. 7 on 23<sup>rd</sup> - JG) and has spread to nearby sites with Lades Marsh, Middleton NR



**Small Rufous**

foreshore and Heysham Road, all producing 2014 records. It was also found in small numbers at Formby with a notable catch of 7 at Haskayne Cutting reserve on 21<sup>st</sup> (RW t al). **Silky Wainscot** is well-established at Leighton Moss and Middleton NR but was not expected at Yealand Redmayne on 10<sup>th</sup> (SS) or Warton on 18<sup>th</sup> (Martin Elsworth - ME). There were also four records from Great Sankey (JM-L). **Brown-veined Wainscot** was a good record at Rindle with two on 18<sup>th</sup> (IW). **Vine's Rustic** has been really hit and miss as a prospective colonist with no recent evidence of any possible populations in VC60 and the only record seemed to be from Ainsdale on 31<sup>st</sup> (RW). The elusive **Northern Rustic** appeared in the far north of VC60 at Dalton Crag on 1<sup>st</sup> (Steve Garland – SG) and a pristine specimen at Docker Moor on 28<sup>th</sup> August (PM), indicating that it is difficult to target a peak emergence time for this species!

VC59 held the monopoly, as usual, for **Marbled White Spot**, with the headquarters being at Rindle where the last of a sequence (mainly in June) was recorded on 3<sup>rd</sup> (IW). It also held the monopoly for **Scarce Silver Lines** with four scattered records comprising Chorlton (BS), Flixton (KMCC), Walmer Bridge (Graham Jones - GJ) and Great Sankey (JM-L). **Small Purple-barred** used to occur around the Warton/Silverdale limestone and the consensus seems to be that it would have been seen if it was still there. Is there a nook or cranny where it still survives or could it be on the

less well-recorded Dalton Crag? In the meantime it remains well-established around the Ainsdale area e.g. 4 on 22<sup>nd</sup> (RM).

Three species from the 'back end' of the checklist did not do very well in 2014 - **Golden Plusia** saw singles at Warton (11<sup>th</sup>- ME) and Yealand Conyers (13<sup>th</sup> BH) whilst I was astonished to find all the **Gold Spangle** records were in either SD66 or 67 and only amounting to eight singletons in a good 'moth trapping summer'. On the absence theme, there was no sign of Black Arches after what we had hoped was the start of colonisation in 2013.

The first hint that it was going to be a well-recorded year for **Marsh Oblique-barred** - and the fact that netting just prior to dusk in mossland habitat was the way to do it - saw two on 3<sup>rd</sup> and a single on 21<sup>st</sup> at Lords Lot Wood (BH & SP)



**Gold Spangle**

## August

**Grass Eggar** records came from the usual area and included 4 on 4<sup>th</sup> at Ainsdale NNR (RM)

The only record of **Satin Wave** in VC60 was a late, presumably second brood, singleton at Warton (30<sup>th</sup> - ME) - it remained regular in the Formby area of VC59. **Beech-green Carpet** is very difficult to locate and two at Gaitbarrows on 5<sup>th</sup> (BH) and a single in a Warton garden on 7<sup>th</sup> (PS) were notable. **Toadflax Pug** first appeared at the iconic SD36V site (new 10km square record!) on 3<sup>rd</sup> (PM) - more later on this species from Brian. The second **Grey Scalloped Bar** of the year was, as the first, from a far-flung upland location at Leck Fell House on 1<sup>st</sup> (PM).

On the migrant front, a spectacular visitor to a moth trap for the lucky few is **Convolvulus Hawk-moth** and one duly appeared near Dolphinholme on 29<sup>th</sup> (NR). Other migrants included a **Gem** at Hoghton on 5<sup>th</sup> (GD)

Rather like **Lunar Underwing**, **Nutmeg** seems to be a coastal species which is at very low ebb at the moment and the only ones in VC60 were at Sunderland (PM) and Poulton (Barry Dyson – BD), but it was still present singly at five scattered location in VC59 as well as an obvious concentration in the Liverpool area.

We received a belated 2011 record of **Lyme Grass** from its original Lancashire location at Lytham, but the only records in 2014 were on the 7<sup>th</sup> at the Shell Beach, Southport using a torch (GJ) and nearby at Ainsdale on 27<sup>th</sup> June (RW). The Green Beach is the main area for **Sandhill Rustic** of which there were no comprehensive surveys in 2014

Docker Moor came into its own during intensive coverage during summer/autumn and that complete misnomer, **Hedge Rustic**, put on a good show, especially in traps set miles away from any hedges on moorland with Bog Asphodel, Cross-leaved Heath etc and the all-important requisite grasses for the larvae. The only others were at Millhouses on 5<sup>th</sup> (JR) and Formby on 4<sup>th</sup> (RW). At Docker Moor, it was frequently accompanied by **Neglected Rustic**. A mainly woodland species avoiding the Silverdale and area limestone might seem unexpected, but **Brindled Green** appears to be in that category with most 2014 records in SD66, but one did appear at Lightfoot Green on 24<sup>th</sup> (SP). Another Docker Moor notable was **Anomalous** on 31<sup>st</sup> (JG) - there were five further records in September from the north of the region and one from Worsthorne in the east of the county (GG)



**Hedge Rustic**

### September

Following the **Convolvulus Hawk-moth** at the end of August, another turned up at Greenbank Farm, Over Kellet on 13<sup>th</sup> (Jackie Thomas et al). Other migrants included a **Delicate** at Dolphinholme on 29<sup>th</sup> with the same trap the following night producing a **Gem** on 30<sup>th</sup> (both NR). A series of **Humming Bird Hawk-moth(s)** graced a Morecambe West End garden (JG). Migrants from VC59 included **Small Mottled Willow** at Walmer Bridge on 4<sup>th</sup> (GJ)

**Small Ranunculus** appeared at Fazakerley, therefore within the known range, on 22<sup>nd</sup> (LW) and there was also a record from Runcorn which was ultimately determined to be a few hundred metres into Cheshire!

**Heath Rustic** has really gone AWOL on the north Bowland and Leck Fell uplands and the only record was from Dolphinholme on 17<sup>th</sup> (NR). VC59 produced two records: Hoghton on 10<sup>th</sup> (GD) and Altcar on 5<sup>th</sup> (RW). Another autumnal noctuid which has gone down the pan in VC60 since at least the 1960's is **Brown Spot Pinion** and the only location was Warton (PS). However, there was a strange pattern of records in VC59 with three hotspots with multiple records, Great Sankey, Hale and (most unexpected) Burnley (Geoff Turner - GT). Similarly **Lunar Underwing** is just scraping the barrel since the heady days, which included 878 in Heysham NR trap in 1995, and the only two VC60 records were indeed from Heysham NR. More records from the southern part of VC59, notably Hale (CC). In contrast, **Beaded Chestnut** was never common in VC60 and one at Little Singleton (30<sup>th</sup>- Susan Bedford - SB) is about par. Yet this is flourishing south of the Ribble with multiple records from as far north as Longton (JG, CW)



**Beaded Chestnut**

**Orange Sallow** has an interesting distribution. It seems to avoid the 'mothing hotspots' such as the Warton/Yealand and Formby areas and turned up singly or doubly in garden traps at Burnley (GT), Rishton (Dave Bickerton - DB), Fazakerley (LW), Hoghton (GD), Fulwood (Alan Powell - AP), Sunderland Point (!) (JG), High Tatham (PM) and Wray (Gary Jones - GJo)

Mid-late September saw the location of a colony of **Marsh Oblique-barred** on Heysham Moss with a pre-dusk check on locating 10 on 19<sup>th</sup> (JP) - not 'pupae' as entered on Mapmate - this will be edited!

### October

October saw that mythical VC60 species, **Streak**, materialise in Steve Palmer's garden at Lightfoot Green (18<sup>th</sup>). VC59 saw two records: Flixton on 17<sup>th</sup> (KMCC) and Chorlton on 19<sup>th</sup> (BS). Another notable record from Lightfoot Green was a **Vapourer** on 12<sup>th</sup> (S & CP). The other 'stand out' garden trap records were both migrants - a **Delicate** near Morecambe Football Ground on 22<sup>nd</sup> (JP) and a **Vestal** in Southport on 28<sup>th</sup> (A & SP).

The usual sample of **Sprawler** appeared at Millhouses at the end of the month with a singleton on Warton Crag (31st - JP). An unexpected record in October was a second brood **Golden Plusia** at Warton (3rd - ME). The start of what was a very prolific period for some of the late autumn/winter-period moths at some sites saw the 31<sup>st</sup> producing 27 **Feathered Thorn** at Lightfoot Green (S & CP) and 33 at Strickland Wood, Warton Crag (JP).



**Marsh Oblique-barred**

### November and December

Following on from the last sentence, this is a funny old time of year where many of the garden moth trappers have given up, but anyone hitting sheltered deciduous woodland (presumably excluding wall to wall Sycamore) can reap great rewards, in numbers if not variety. The **Scarce** and **Mottled Umber** battle was won decisively by an Aughton Woods actinic trap with a massive **1164 Mottled** on 17<sup>th</sup> Dec (JP) and pretty impressive **Scarce Umber** catch of 131 on 19<sup>th</sup> Nov (JP). The actinic on 17<sup>th</sup> **December** held the largest moth catch anywhere in the region during 2014! The previous record holder, Millhouses, trailed badly with just 148 **Mottled** (28<sup>th</sup> Nov) and pipped at the post with **Scarce Umber** (119 on 28<sup>th</sup> Nov). Perhaps surprisingly, the **December Moth** battle was won by Lightfoot Green with 43 on 28<sup>th</sup> Nov (S & CP). Surely there are other sites out there that could approach these sorts of numbers in 2015 and add (at least) new tetrad records? **Winter Moth** was also in large numbers with c100 at Aughton on 6<sup>th</sup> Dec (JP) the maximum

The south of the region saw a creditable 6 **Northern Winter Moth** at Ainsdale on 8<sup>th</sup> Nov (Ron Moyes - RM). Other sightings of interest included a **Pale Mottled Willow** at Hoghton on 4<sup>th</sup> Nov (Graham Dixon - GD), **Grey Shoulder Knot** at Warton Crag on 1<sup>st</sup> Nov (JP) and a scarce and late regional visitor in the form of **Figure of Eight** at Heysham NR on 7<sup>th</sup> Nov. The latest migrant record which could be traced was **Silver Y** at Heysham Road on 24 Nov (J & BH).

## Micro-moth Highlights 2014 John Girdley

Seven new species of Micro-moth were recorded in Lancashire during 2014. All were in the Northern part of VC60. So far as we know, none have "come to light" in VC59. Predictably, most were small and obscure individuals that required dissection for confirmation. For three of the species, historic dots appear on maps but with no further documented evidence, these are listed.

### **Gelechiidae:**

**35.116 816** *Scrobipalpa obsoletella* (Röslerstamm) – Middleton LWT NR SD414590 (**60**) 30.viii.2014, male genitalia det Dr N. Rogers, conf Steve Palmer, (SMP) – Justine Patton (JP)

### **Elachistidae:**

**38.001 590** *Perittia obscurepunctella* (Staint.) – Warton Crag SD4972 (**60**) 23.iv.2014, **first documented VC record**, male genitalia det. SMP – John Girdley (JAG)

**38.028 599** *Elachista alpinella* Staint. – Gait Barrows NNR SD483774 (**60**) 25.vii.2014, **first documented VC record**, male genitalia det. SMP – SMP

**38.033 603** *Elachista subnigrella* Dougl. – Warton Crag SD4972 (**60**) 12.vi.2014, **first documented VC record**, male genitalia det. SMP – B. Elliot, B. Hancock, SMP

### **Tortricidae:**

**49.190 1101** *Endothenia ustulana* (Haw.) – Gait Barrows NNR SD483774 (**60**) 25.vii.2014 female genitalia det. – SMP

**49.363 1228** *Pammene argyrana* (Hübner.) – Herring Head Wood SD639687 (**60**) 3.v.2014 male – T.M.Whitaker

### **Crambidae:**

**63.079 1292** *Calamotropha paludella* (Hübner.) – Middleton LWT SD416591 (**60**) 6.vii.2014, male genitalia det. – JAG

This species is known from Southern Lancashire and this record could represent a notable range expansion. Recorders at other wetland sites, notably Leighton Moss should look out for it.

**Other significant species**, include *Caloptilia cuculipennella*, which was found new for VC60 last year, but was noted several times this year flying near Ash on Warton Crag. (JP)



**Calamotropha paludella**



**Eana incanana**

*Eana incanana* was found at Millhouses 6<sup>th</sup> July (Jean Roberts)

*Prochoreutis myllerana*, a rather scarce Skullcap feeding micro came to light on Silverdale Moss on 19<sup>th</sup> July. (JAG, JP)

There was just one record (of five moths) of *Pamene aurita* this year at Trowbarrow Quarry, 23<sup>rd</sup> July (JAG, Claire Ward (CW)). There are only ten previous VC60 records.



**Pamene aurita**



**Schreckensteinia festaliella**

The attractive little mirco, *Schreckensteinia festaliella* was found twice this year in VC60, one was at the old Pontins site, both JP. (one was also found in the Formby area) These were the first records since 2002.

The previously little recorded *Diurnea lipsiella* has proved to be an easily found October flying speciality on Warton Crag. (JP, JAG)



**Diurnea lipsiella**

The very scarce *Eidophasia messingiella* turned up at Rishton in VC59 on 1<sup>st</sup> July (DB), the most north-westerly record since the 1800's!

#### Lancashire Migrant Micros:

**Rusty Dot Pearl:** There were 67 records this year, the first at Sunderland Point 12<sup>th</sup> June (JAG) , the last at Southlands, Longton 21<sup>st</sup> Nov (JAG, CW)

**Rush Veneer:** Just 4 records, the first and last being at Sunderland Point, 29<sup>th</sup> April, 9<sup>th</sup> Oct (JAG)

**Diamond Backed Moth:** 109 records, the first at Penketh, by the Mersey, 21<sup>st</sup> May (Joy Mitchell-Lisle) the last at Southlands, Longton 31<sup>st</sup> Oct (JAG, CW)



**Eidophasia messingiella**

#### Anania funebris update:

*Anania funebris* had its best year since 2011, with 10 records of 29 moths. The best was 11 at Gaitbarrows on 16<sup>th</sup> May (N. Godden). All records were from the usual haunts of Gaitbarrows and Warton Crag. Please continue to send in ALL records of this species.

## Lancashire Moth Recording during 2014 - a Year of Change A personal View, Alex Parsons

In Lancashire we are very lucky to have an active mothing community and have been even luckier in that we had, for many years, two dedicated and very hard working county recorders, in Steve Palmer and Graham Jones. Not only did they do all the necessary work of county recorders, in terms of collating and verifying records, but they also provided excellent support and encouragement to moth recorders on identification etc. In addition, Steve and his wife Carolyn also managed the Lancashire Moths website which has been such an asset to the Lancashire community.

As you can imagine then, it was a bit of a blow when both Graham and Steve announced that they had to step down as Recorders in late 2013. I would like to sincerely thank them on behalf of us all for all the effort they put into the role over the years. They are a tough act to follow.

Luckily, there were a few mad folk who were prepared to step into the breach and take over the roles, although with a fair degree of trepidation.

During January 2014 Pete Marsh agreed to try out the Macro moth recorder role for VC60 (North Lancashire), John Girdley did the same for Micros and Richard Walker agreed to take on the macro role for VC59 (South Lancashire). Richard subsequently agreed to try to act as micro recorder for VC59 too. After we checked his temperature to make sure he wasn't feverish, we all gratefully accepted his offer.

There were some problems to overcome though. While all the new county recorders were happy to work on the main tasks of County recorders, i.e. record collation, verification of rare or unusual sightings etc and the forwarding of consolidated data to the National Moth Recording Scheme, they were all concerned about the other workload associated with the tasks.

In particular, none of them felt comfortable about managing Mapmate, by being the 'hub' for the county as Steve had been. Managing the website was also an issue and lastly, there were concerns about the amount of effort involved in dealing with a wide variety and varying quality of records submitted. For example there were records that missed some vital information, such as site or date, or that had moth names that didn't exist, or vernacular and Latin names that didn't match and so on.

Even the issue of getting records with fields in a different order to that used by Mapmate or the NMRS makes for a great deal of extra work. It was therefore felt that something had to be done to try and streamline the input of records

Luckily, at the same time that the new recorders stepped in, a few other people came forward to offer help.

Graham Dixon took over the major role of managing the Mapmate hub, including the replication of records to and from individuals, the extraction of new records for the county recorders to verify, the import of records from spreadsheets and so on as well as the management of the master records list for the county to be sent to NMRS.

Nigel Rogers volunteered to take on the task of detailed 'micro determination' otherwise known as genitalia examination and has provided an excellent service to the recorders.

Steve Palmer obviously couldn't entirely kick the habit and has provided help with Gelechiidae ID and Brian Hancock has done the same for Pug ID.

At the same time Alex Parsons came forward and offered to take over management of the website, including moving it to a new (free) hosting site (Google sites).

The recorders and Graham were also keen to try and do more to improve the consistency and ease of collation of records coming in from individuals, so Alex constructed a set of spreadsheets for Macro and micro entry that included a lot of error checking, automatic fill in of data (so for example if you chose a vernacular name from the drop down list, the Bradley number and Scientific binomial name would be filled in for you) as well as hints and alerts to the individual recorder such as 'this species needs a photograph' or 'this species is new to Lancashire' and so on. The spreadsheets were also designed to be easily imported into Mapmate by Graham.

The new regime and the 'supporting band' were unveiled to the unsuspecting public at a Moth Social in March, and on-line.

We then waited for the season to start.....

Looking back now at the 2014 season, we all feel it has gone well.

There have been, to date, a total of **63118 records of 203631 moths submitted by 144 recorders from 520 sites/grid references.**

Where provided in a different form, Graham has imported them into Mapmate mainly from the proforma spreadsheets but also from other sources and has found that the sheets do their job well. A considerable number of records have been dealt with this way.

A majority of the rest of the records were submitted by individuals directly into Mapmate. In addition, 'paper copy' from non-computer-users was added to MapMate

or the spreadsheet by a number of people, in addition to the recorders. Geoff Turner and Steve Palmer deserve special mention here

Graham also helped this group by adding some extra function to our copies of Mapmate, with such alerts as new to Lancashire, first record for this recorder etc which have helped the individual recorders with their inputs.

Pete, Richard and John have been very busy with verification and so on but have coped well. Steve, Brian, Ben Smart and Nigel have provided excellent specialist assistance. The county recorders have also been active with advice and ID assistance to individual recorders throughout the season.

The summary for the second half of 2014 for macro-moths is included in this newsletter along with a highlights summary of micro-moths for the whole year

The group are still fighting the battle for Belted Beauty and are actively seeking to encourage new moth-ers.

Some of the moth-ers, particularly those who are into social media, have tended to just post their interesting sightings on Facebook and so on. Great to see of course, but difficult to incorporate into full records for the future. Graham has entered some of these sightings into Mapmate while Pete Marsh has had time to track some of these down where identification, location

and date have been easily determined. Ben Smart has been extremely helpful in proving ID's via Social media and also co-led a leaf mining workshop with John this autumn.

In addition to continuing the overall recording effort, 2015 (and the year after) is about encouraging the group to cover the under-recorded 10 "white hole" squares for the production of the National Macro Moth atlas in two years time.

All in all, it has been a good example of co-operation and mutual assistance by the people involved, with the result that we are still able to offer a good county recorder service to the moth-ers of Lancashire.

Roll on the 2015 season.

## More Pug News for the second half of 2014 Brian Hancock

The summer of 2014 has been the best for over 10 years with many warm still evenings, ideal for dusking in search of my favourite Pugs. Pete Marsh's excellent review in the August Newsletter mentioned all the exciting finds for the first half of the year, a second site for Netted pug at Carnforth, a strong colony of Thyme pug on the Keer estuary at Warton and Bilberry Pug new for VC 60 at Lords Lots wood, all found by netting at dusk. This trend continued through July with the capture of a fresh Triple-spotted Pug at Lord Lot wood on 16th July. There are only three records for Lancashire all in the last five years and all worn specimens at light. Triple-spotted Pug is a widespread over the UK but infrequently recorded. They rarely come to light and then could easily be overlooked being rather undistinguished even when fresh.

As with most pugs I thought I would have a better chance with a net so followed up John Girdley's find at a sheet and light session in Lords lot wood on 10.8.12. After a study of google earth and a day time recce I located a likely spot. Angelica its favoured food plant was growing in a damp woodland edge. With Peter Stevens on 16.7. I searched the area for an hour after sunset and netted just one TSP. returning again with Steve Palmer on 21.7 we again netted just one in an hour. Either we were early in the flight season or the moth occurs in very low density. Even with one specimen per two man hours of dusking it was rewarding effort. We were looking to our knowledge at the first reasonably fresh specimen to be seen in Lancashire.



**Triple-spotted Pug**



**Triple-spotted Pug larva on Angelica**

Pug numbers and species are declining though August though Juniper Pug was still regular as my garden my thoughts turn to larva hunting. First on my list was the TSP at the capture site at Lords Lot wood and sure enough some gentle tapping of the Angelica seed heads produced three larva which when matured fit the description. I hope they have pupated successfully in their pot and I shall see a perfect specimen this year. I have had no luck searching Angelica on other likely sites at Hale moss, Gait Barrows and Silverdale Moss. Our other records are from Morecambe on 13.7.12. (JG) and Steve Palmer's home just north of Preston on 30.7.08, it must be waiting to be discovered in other areas in Lancs, and larval searches in September are probably the best way to do it. Angelica is a widespread plant especially in damp areas.

Second on my list was Toadflax Pug. Heysham reserve has always been a hot spot though has become distinctly cool with only two or three records in the light trap for the last few years. I have noted that the Toadflax has declined considerably over the years. On 1.9. I found one distinctive larva within five minutes of opening some "snapdragon" heads.



**Toadflax Pug Larva with flower head.**

I searched another hour on the few remaining Toadflax on the reserve and on a good patch on the Middleton site without finding any more. I had similar experience when searching a clump of Toadflax on N. Walney Island, on 3.9.13, within the first minute I found one but then no more in the next half hour. This larva was retained and bred though for a perfect specimen.



**Freshly emerged Toadflax Pug**

Toadflax is uncommon in Lancashire and largely coastal but well worth searching in September, be patient.

My final target was Bleached Pug which has only been reliably recorded from Gait Barrows in Lancs. Its food plant Golden Rod, *Soldago virgaurea* is locally common. In 2014 I netted several at dusk on 8.8.13 but none this year in spite of two searches in early August. I was disappointed not to find larvae in September though to my surprise found a few larvae in a new site in early October. Two were retained and have now pupated and I wait with anticipation to

see if they are Bleached Pug. In previous years I have reared Golden Rod Pug from its name sake plant at Gait Barrows but these larvae look different. I have yet to find a good photo of a Bleached Pug larva so lets hope I can confirm this is one of the first!



**Probable Bleached Pug Larva on Golden Rod.**

**Gait Barrows 10.10.14**

## Recorders

PMrsh123@aol.com Peter Marsh – VC60 Macro

troubleatmill@btinternet.com Graham Dixon – MapMate hub

john@birdtours.co.uk John Girdley – VC60 Micro

rbkvwalker@talktalk.net Richard Walker - VC59 Macro

Any one of us can help with micros from VC59, but also we recommend that you post the trickier ones which can be identified by photos on the Yahoo or Facebook groups where Ben Smart, for example, has been an invaluable help.

If you have a micro which is part of a group which requires dissection (i.e. as per the list on the Lancashire Moth Group website), and you do not wish to go down that road, you will just have to accept that it cannot be definitely identified. If it is a choice between two very rare species which require dissection, please can we persuade you to contact e.g. John Girdley for further advice?

If you do not wish to own MapMate, please could you send your records in, if possible, using Alex Parson's spreadsheet, the details of which are on the Lancashire Moth Group website. Of course, we will still accept paper copy or any other means of sending records in - it is not a problem entering these. However we won't be entering casual postings on the Facebook site as we have found that requests for grid references, specific dates etc from people whose motivation is not the 'recording scene' have not always been well-received.

Please could you synchronise your first half-year records into Graham Dixon (or via your spreadsheet submissions) as soon as possible after the end of June so that we have material for the July 2015 newsletter. Alternatively, please let Pete Marsh know of any highlights or post on either the Facebook or Yahoo groups.

Thanks once again for all your efforts and good mothing!



**Dingy Shell**

## Useful contacts and links

Lancashire Moth Group Website	<a href="http://www.lancashiremoths.co.uk">http://www.lancashiremoths.co.uk</a>
Lancashire Moths Yahoo Group	<a href="https://groups.yahoo.com/neo/groups/lancashiremoths/info">https://groups.yahoo.com/neo/groups/lancashiremoths/info</a>
Lancashire Lepidoptera Facebook Group	<a href="https://www.facebook.com/groups/119829941488294/">https://www.facebook.com/groups/119829941488294/</a>
Lancashire Micro Moth Tips FB Group	<a href="https://www.facebook.com/groups/580000418802001/">https://www.facebook.com/groups/580000418802001/</a>
UK Moths Website	<a href="http://www.ukmoths.org.uk">http://www.ukmoths.org.uk</a>
Leaf Mines UK	<a href="http://www.leafmines.co.uk">http://www.leafmines.co.uk</a>
Butterfly Conservation	<a href="http://www.butterfly-conservation.org">http://www.butterfly-conservation.org</a>
Butterfly Conservation Lancs	<a href="http://www.butterfly-conservation.org/306/lancashire-branch.html">http://www.butterfly-conservation.org/306/lancashire-branch.html</a>
Norfolk Moths	<a href="http://www.norfolkmoths.co.uk">http://www.norfolkmoths.co.uk</a>
Hampshire Moths	<a href="http://www.hantsmoths.org.uk">http://www.hantsmoths.org.uk</a>
European Butterflies & Moths	<a href="http://www.lepidoptera.eu">http://www.lepidoptera.eu</a>
The National Bio-diversification Network	<a href="https://data.nbn.org.uk">https://data.nbn.org.uk</a>
Mersey Bio Bank	<a href="http://www.merseysidebiobank.org.uk">http://www.merseysidebiobank.org.uk</a>
Lancashire & Cheshire Fauna Society	<a href="http://www.lacfs.org.uk">http://www.lacfs.org.uk</a>