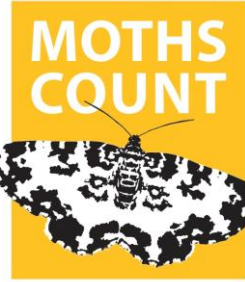


**Butterfly  
Conservation**

Saving butterflies, moths and our environment



## E-moth

### Moths Count Update October 2014

#### 5<sup>th</sup> National Moth Recorders' Meeting

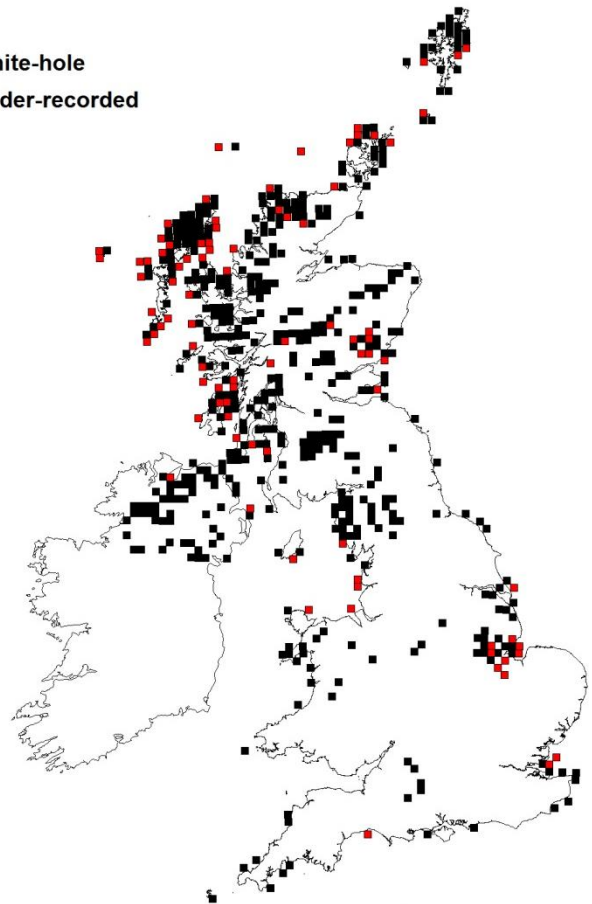
Our National Moth Recorders' Meeting is taking place on **Saturday 31<sup>st</sup> January 2015** at the Birmingham and Midland Institute, central Birmingham. The programme has been finalised and can be found at the end of this newsletter and on the Moths Count website ([www.mothscount.org](http://www.mothscount.org)). As usual we have a range of speakers and moth related topics from across the UK and indeed Europe. Atropos, Pemberley Books and Watkins and Doncaster will be in attendance, so bring your purses and wallets to stock up on natural history books and equipment. If there is anything specific that you might require, please contact the traders in advance who can take pre-orders for collection on the day. Advanced booking is essential for this event. With increasing prices and following consultation with last year's audience, we have increased cost of the event to £7.50 per person. This is payable on the day and includes, tea, coffee and lunch, all still heavily subsidised from Butterfly Conservation budgets. I hope that you all feel that the day is still good value for money. To book your place please email [info@butterfly-conservation.org](mailto:info@butterfly-conservation.org) or phone 01929 400209.

#### National Moth Recording Scheme Update

With the support of the County Moth Recorder network, record collators, local record centres and of course the entire moth recording community, the NMRS database continues to grow. We now hold 17.3 million moth records, this figure will increase further this year as there are still a number of refreshed datasets to import. Since the annual newsletter was published in September, 9 refreshed vice-county datasets have been imported into the NMRS. The most recent being VC1 & 2 West Cornwall & East Cornwall, VC3 & VC4 South & North Devon, VC10, VC11 & VC12 Isle of Wight, South & North Hampshire, VC71 Isle of Man and VC83 Midlothian. In addition to this, Bristol Regional Environmental Records Centre (BRERC) has refreshed their moth data with us too. The Cornwall refresh is especially welcome as it includes in excess of 87,000 historical records for the two vice-counties and therefore filling in some substantial gaps in historical moth distributions.

Geographical coverage of the UK, Channel Islands and Isle of Man at 10km resolution is very good (97%). There are only 87 10km squares for which we do not have any records

- White-hole
- Under-recorded



Location of 'white-holes' and potentially under-recorded 10km squares with 50 or fewer records and 25 or fewer species recorded.

as yet (see map right). We consider these squares to be 'white holes'. Many of these squares are coastal and may therefore only have a small percentage of land upon which to site a moth trap, conduct a caterpillar search or look for day-flying moths, however, we would love to get these squares targeted in advance of the planned *Macro-moth Atlas for Britain and Ireland*.

A recent analysis of the entire NMRS dataset (all years) shows that there are 462 10km squares (15% of all recorded squares) that have 25 or fewer species recorded in them. In addition to this, 529 squares (17% of all recorded squares) have 50 or fewer records. In total there are 455 squares (15% of all recorded squares) which have 25 or fewer species recorded **and** 50 or fewer records (see map above). You could consider these 10km squares to be under-recorded, especially if they are in the lowlands.

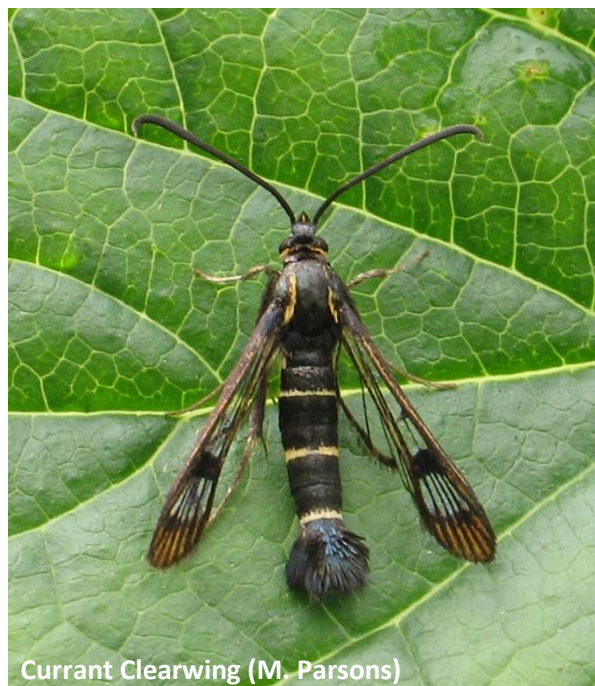
A full list of all these white hole and under-recorded squares is available at the end of this newsletter. If you are able, please consider targeting them next year but, before you do, please check with the relevant County Moth Recorder to ensure that the squares you intend to visit are real gaps (rather than artefacts of records having not been submitted to the NMRS as yet).

### **Clearwings: mystifying moths**

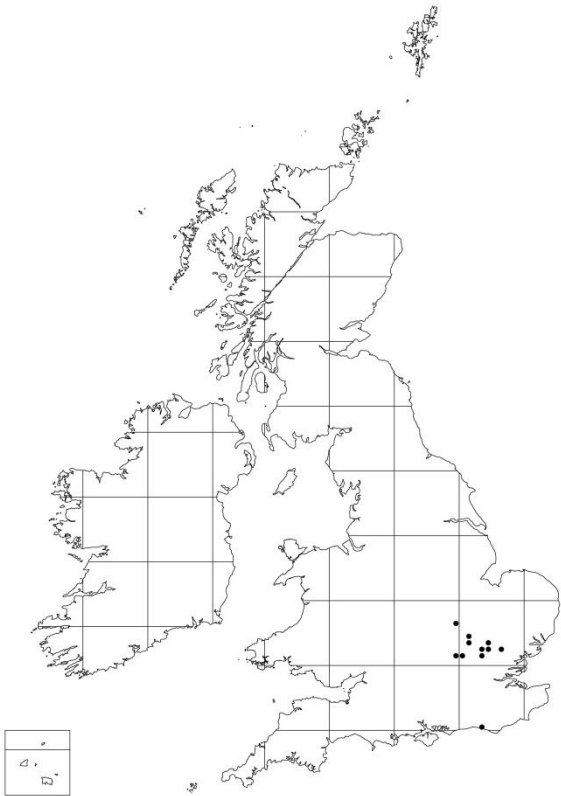
In the British Isles, we have 16 resident species of Clearwing moths. The most recent addition to the British list was that of the Raspberry Clearwing (see map 1 on following page); a larva was discovered in raspberry canes in Cambridgeshire in 2007. Dusky Clearwing has not been recorded for around 80 years in Britain and it is considered extinct.

Clearwing moths are a generally under recorded group because they are day-flying and rather elusive. We are very keen for moth recorders to target this group to get a better idea of species distributions over the next two years, in preparation for the planned *Macro-moth Atlas for Britain and Ireland*. As can be seen from the maps shown below, several of the Clearwing species appear to have undergone distribution declines – but are these patterns real or simply the result of under recording?

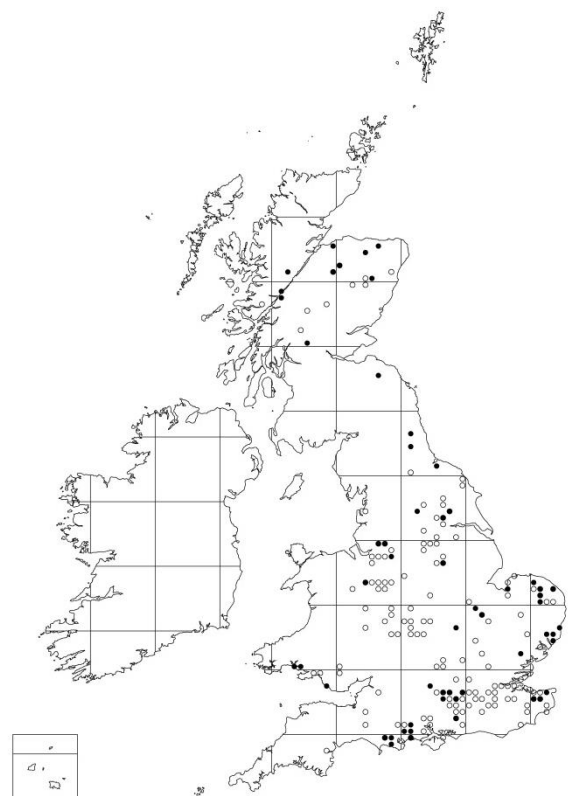
The first Clearwing of the year to emerge is the Large Red-belted Clearwing in May, it is found in heathland and woodland habitats where the host tree, Birch is abundant. This species is known from much of mainland Britain but is easily overlooked due to its early emergence, it is likely that this species is under-recorded (see map 2). Yellow-legged Clearwing is also thought to be under-recorded, it should be a frequently encountered species due to its relatively ubiquitous habitat preference (see map 3). In recent years targeted recording of Welsh Clearwing has improved our knowledge of this species distribution with colonies being discovered in Sherwood Forest, Nottinghamshire in 2008 and Cannock Chase, Staffordshire in 2005. The moth has been shown to occupy a large part of southern Merionethshire and adjacent northern Montgomeryshire – an area amounting to over 600 square kilometres (see map 4). Currant Clearwing is found in gardens and allotments as it feeds on Red and Black Currants, this is an easy species to target for recording (see map 5). Red-belted Clearwing is another relatively easy species to target as the larvae feed on apples and crab apples and are found in orchards, gardens, hedgerows, open woodland and mature scrub (see map 6). Please note that Fiery Clearwing is a protected species and a licence is required to search for this species.



Currant Clearwing (M. Parsons)



**Map 1:** NMRS Provisional distribution map of Raspberry Clearwing at 10km resolution. Solid dots 2000 onwards records



**Map 2:** NMRS Provisional distribution map of Large Red-belted Clearwing at 10km resolution. Open circles pre 2000 records and solid dots 2000 onwards records.

One way to improve the recording of Clearwings is to use pheromone lures which can be purchased from Anglian Lepidopterist Supplies ([www.angleps.com](http://www.angleps.com)). Pheromone orders are taken as of January each year, then despatched in late April ensuring the lures are fresh and ready for the season. Pheromone lures can be bought individually or in sets. The classic set of six has been extensively tested throughout Europe. The five optional lures have been field tested in the UK for the last nine seasons. The classic set consists of:

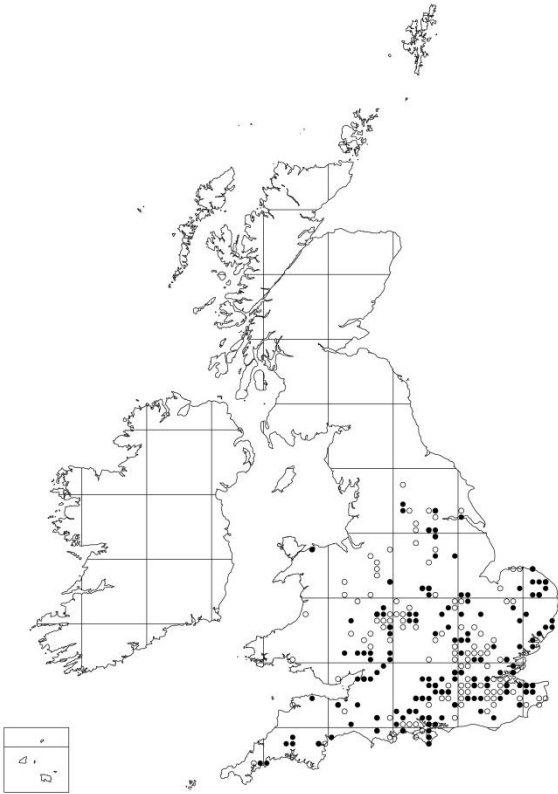
- *Bembicia ichneumoniformis* (api) used for Six-belted Clearwing
- *Pennisetia hylaeiformis* (hyl) used for Thrift and Raspberry Clearwing.
- Dusky Clearwing *Paranthrene tabaniformis* (tab)
- Red-belted Clearwing *Synanthedon myopaeformis* (myo)
- Currant Clearwing *Synanthedon tipuliformis* (tip)
- Yellow-legged Clearwing *Synanthedon vespiformis* (ves)

The optional British clearingwing lures are;

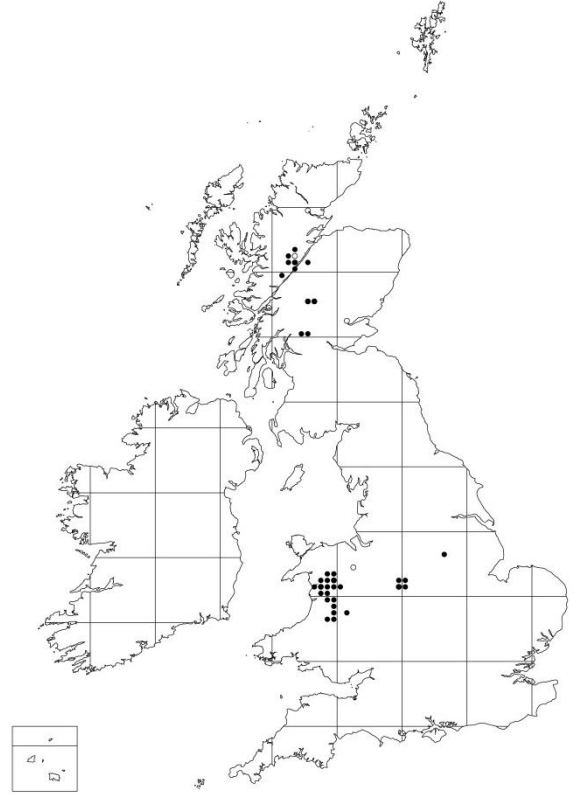
- Red-tipped Clearwing *Synanthedon formicaeformis* (for)
- Welsh Clearwing *Synanthedon scoliaeformis* (sco)
- Large Red-belted Clearwing *Synanthedon culiciformis* (cul)
- Hornet Moth *Sesia apiformis* (hor)
- Sallow Clearwing *Synanthedon flaviventris* (sal)

Anglian Lepidopterist Supplies provide a comprehensive guide to using and storing your lures along with information on each species with each set of pheromones. Christmas is coming and a set of pheromone lures makes an ideal present for the moth recorder who has (almost) everything!

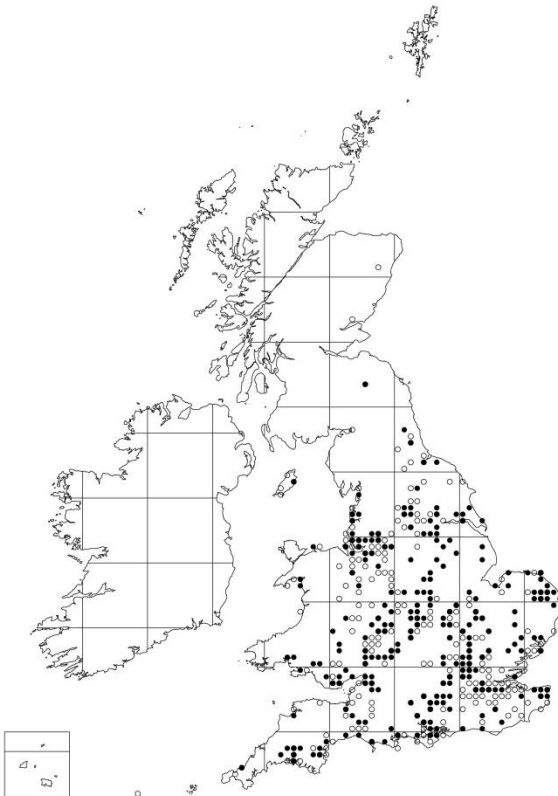
It would be great if the moth recording community were to take up the challenge of targeting the Clearwing group over the coming seasons. Other day-flying species can also be recorded at the same time thus improving our knowledge of their distributions too. This is all vital work in the run-up to the *Macro-moth Atlas for Britain and Ireland*.



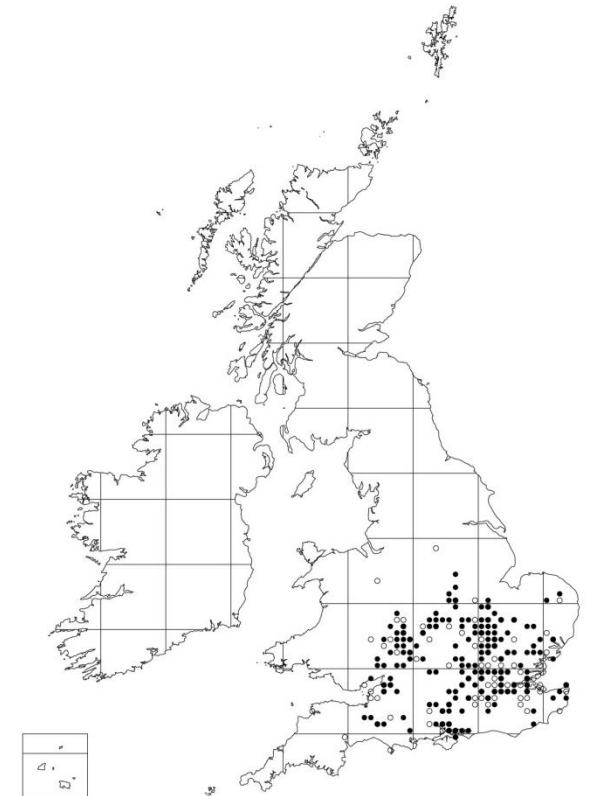
**Map 3:** NMRS Provisional distribution map of Yellow-legged Clearwing at 10km resolution. Open circles pre 2000 records and solid dots 2000 onwards records.



**Map 4:** NMRS Provisional distribution map of Welsh Clearwing at 10km resolution. Open circles pre 2000 records and solid dots 2000 onwards records



**Map 5:** NMRS Provisional distribution map of Currant Clearwing at 10km resolution. Open circles pre 2000 records and solid dots 2000 onwards records



**Map 6:** NMRS Provisional distribution map of Red-belted Clearwing at 10km resolution. Open circles pre 2000 records and solid dots 2000 onwards records



## Day-flying moths and the Wider Countryside Butterfly Survey

The Wider Countryside Butterfly Survey (WCBS) aims to more effectively monitor the changing abundance of widespread butterfly species across the general countryside. It is the first UK wide survey of butterflies based on random sampling. Volunteers from Butterfly Conservation and the BTO's Breeding Bird Survey (BTO/BBS) take part in the WCBS. They walk parallel transects in randomly selected 1km squares at least twice during July and August and are encouraged to count moths and dragonflies, as well as butterflies.

Since the launch of the scheme in 2009, 7,401 individual moths of 70 species have been recorded from 619 (45% of surveyed) WCBS squares (see map right). The random nature of the WCBS provides opportunities for the targeting of 'white-holes', for example two WCBS squares where butterflies were seen fall within two 10km white-holes in the NMRS, both of these were in Scotland.

Although the recording of day-flying moths in the WCBS is not fully comprehensive, the scheme does provide some interesting records, all of which are forwarded to County Moth Recorders for verification and incorporation into local datasets and ultimately the National Moth Recording Scheme. This year a record of Blood-vein in Gloucestershire was only the second for SP10 and the first since 1974. With the forthcoming *Macro-moth Atlas for Britain and Ireland* we are appealing to butterfly recorders to record day-flying moths along their transects to help boost coverage.

The average number of moths per square in 2013 was double that of 2012 (8 compared to 4). The most widespread and abundant moth in 2013 was Silver Y being found in 61% of squares and accounting for 60% of all moths counted. Six-spot Burnet was the second most abundant moth (7% of all moths counted) and the third most widespread species (found in 13% of squares).

The most species rich square was TQ3566 in Bromley, South-east London where seven moth species were recorded; Cinnabar, Common Carpet, Humming-bird Hawk-moth, Jersey Tiger, *Pyrausta aurata*, Silver Y and Yellow Shell. The highest count of individuals was 400 Silver Y's on 13 August 2013 at TM5075, Southwold, Suffolk.

If you would like to get involved in the WCBS to count day-flying moths and, of course, butterflies please contact Zoë Randle via [survey@butterfly-conservation.org](mailto:survey@butterfly-conservation.org). For more information please visit the WCBS website [www.ukbms.org/wcbs.aspx](http://www.ukbms.org/wcbs.aspx).

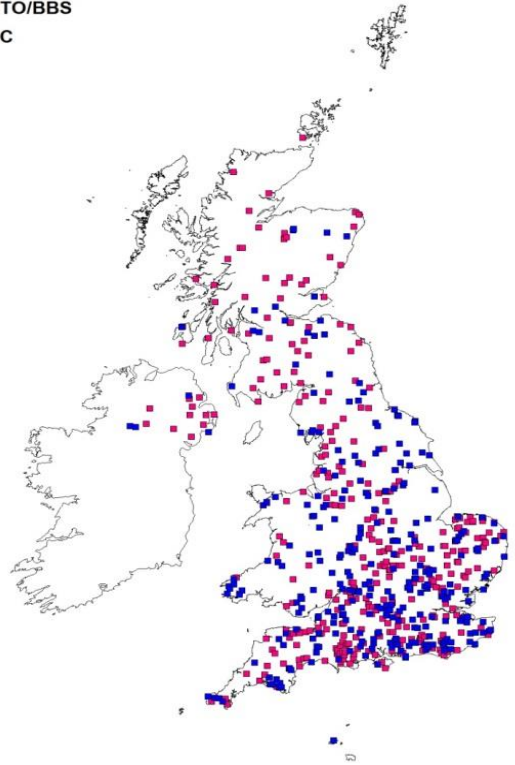
## Moth Night

Moth Night was held from 3<sup>rd</sup> to 5<sup>th</sup> July this year, the theme was woodland moths. Data have been coming in and so far we have 802 events reported. Just over 25,000 records for 968 species have been received to-date, equating to approximately 77,108 individual moths counted.

The deadline for data submission is 30<sup>th</sup> November 2014. So, if you haven't already done so, please enter your data via the online system ([www.mothnight.info](http://www.mothnight.info)); this is the only way to submit records for Moth Night. Unfortunately we do not have the resources to deal with records in a variety of formats. A full report of Moth Night 2014 will be published in *Atropis* in due course.

Moth Night will return in 2015 from 10<sup>th</sup> to 12<sup>th</sup> September, the theme is yet to be decided, but further details will be released in the near future.

■ BTO/BBS  
■ BC



Location of WCBS squares where moths have been recorded 2009-2013.

## **STOP PRESS: NMRS data analysis paper now Open Access**

Earlier this year, the first major analysis of data from the National Moth Recording Scheme (NMRS) was published, which revealed an overall decline among Britain's larger moths. The study, carried out by scientists from Butterfly Conservation, the Centre for Ecology & Hydrology and University of York, was the first to examine long-term trends for all of Britain's resident larger moths.

Thanks to CEH, the paper, published in the Journal of Applied Ecology, is now Open Access so you can now read the paper in full at <http://onlinelibrary.wiley.com/doi/10.1111/1365-2664.12256/full>

## **Moths Count Contacts**

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**Acknowledgements:** The ongoing Moths Count project is supported financially by Natural England, Natural Resources Wales, Forest Services, Forestry Commission England, Northern Ireland Environment Agency, Royal Entomological Society, Scottish Natural Heritage and many other individuals and partners.

[www.mothscount.org](http://www.mothscount.org)

**NMRS 10km square 'White Holes'****N.B All records from 1500-2014.**

<b>10 km sq</b>	<b>VC</b>	<b>10 km sq</b>	<b>VC</b>
SY38	3	NM19	104
TR08	18	NG79	105
TR19	18	NC62	107
TF53	28	NC27	108
TF30	29	NC34	108
SH59	52	NC43	108
TF13	53	ND07	109
TF14	53	HW63	110
TF21	53	HX62	110
TF32	53	NA00	110
TF54	53	NA81	110
TF45	54	NA90	110
SJ19	58	NA93	110
SD22	59	NB30	110
SD23	60	NB40	110
TA42	61	NB46	110
SD08	70	NB52	110
SC36	71	NB53	110
NT59	85	NF09	110
NO26	90	NF56	110
NO34	90	NF58	110
NO44	90	NF61	110
NO46	90	NF68	110
NO47	90	NF80	110
NO63	90	NF89	110
NN98	92	NF95	110
NN36	97	NG07	110
NN13	98	NG18	110
NR82	100	NG49	110
NS01	100	NL57	110
NR63	101	NL68	110
NM40	102	NL79	110
NM60	102	HY23	111
NM61	102	HY34	111
NR16	102	HY35	111
NR48	102	HY54	111
NR56	102	HY73	111
NR58	102	HU14	112
NM16	103	HU55	112
NM21	103	HU66	112
NM23	103	HZ17	112
NG13	104	J68	H38
NG38	104	C52	H40
NG66	104		

**NMRS under-recorded 10km squares (50 or fewer records and 25 or fewer species)**

**N.B All records from 1500-2014**

10km	# spp	# recs	VC
SV90	3	3	1
SW44	20	42	1
SW65	3	3	1
SW81	6	7	1
SS10	4	5	2
SS11	5	5	2
SX03	13	26	2
SX14	1	2	2
ST98	21	32	7
SU07	17	22	7
ST93	1	2	8
SU14	3	3	8
SU15	3	5	8
SZ28	15	16	10
SZ99	22	35	13
TR07	13	16	15
TR12	25	36	15
TR27	6	8	15
TR33	4	7	15
TR46	11	49	15
TR47	2	2	15
TQ98	22	31	18
SK03	21	25	39
SJ42	22	26	40
SM50	3	3	45
SN36	3	4	46
SN59	17	31	46
SN87	14	26	46
SN99	19	25	47
SH51	21	23	48
SH13	1	1	49
SH23	4	4	49
SH24	10	11	49
SH32	17	30	49
SH43	3	3	49
SH44	25	40	49
SH65	8	10	49
SH76	9	21	49
SJ14	24	31	50
SH29	9	14	52
SK93	1	1	53
SK95	5	6	53
TF03	9	9	53
TF04	2	3	53
TF05	3	3	53
TF06	23	28	53

10km	# spp	# recs	VC
TF12	3	3	53
TF23	2	2	53
TF43	1	3	53
TA01	5	7	54
TA11	3	3	54
TA40	3	3	54
TF25	19	24	54
TF29	6	6	54
TF34	13	15	54
TF39	5	6	54
TF44	15	15	54
TF48	23	26	54
SK14	22	30	57
SK47	19	34	57
SD35	17	17	60
TA22	4	4	61
TA33	4	4	61
NZ72	19	40	62
NZ91	17	30	62
OV00	1	1	62
SD79	16	34	65
NZ32	15	16	66
NZ39	2	2	67
NU05	25	28	68
NY41	17	21	69
NY50	6	6	69
NY71	2	2	69
NY72	12	12	69
NY81	5	5	69
SD16	1	2	69
SD29	3	4	69
NX90	2	2	70
NX92	6	10	70
NX93	3	5	70
NY00	4	6	70
NY01	17	50	70
NY03	4	10	70
NY04	11	18	70
NY05	9	9	70
NY11	3	5	70
NY12	17	26	70
NY13	16	23	70
NY14	3	3	70
NY20	25	42	70
NY34	1	1	70
NY42	22	25	70

10km	# spp	# recs	VC
NY43	3	3	70
NY46	8	11	70
NY57	1	2	70
NY58	7	7	70
NY63	4	9	70
NY64	8	8	70
NY74	23	43	70
SD09	9	16	70
SD19	18	28	70
SC17	19	19	71
SC47	4	4	71
NS71	19	26	72
NT10	13	22	72
NT20	23	26	72
NY28	2	2	72
NW97	23	32	74
NX03	21	42	74
NX27	19	31	74
NS00	7	9	75
NS14	10	21	75
NS22	1	1	75
NS23	7	17	75
NS50	18	45	75
NS51	24	24	75
NS52	8	18	75
NS60	16	20	75
NS61	6	8	75
NS62	7	10	75
NX29	12	14	75
NS63	14	32	77
NS72	4	5	77
NS73	5	5	77
NS76	12	15	77
NS82	5	6	77
NS83	16	16	77
NS91	4	4	77
NS92	1	1	77
NS93	9	13	77
NS95	6	9	77
NT03	16	34	77
NT05	7	8	77
NT71	15	17	80
NT68	15	18	82
NO60	1	2	85
NO61	8	8	85
NT39	25	31	85



10km	# spp	# recs	VC
NT49	5	7	85
NN90	5	5	87
NN43	4	4	88
NN44	3	4	88
NN56	7	11	88
NN61	13	13	88
NN66	21	21	88
NN73	2	2	88
NN83	10	10	88
NN84	13	14	88
NN93	6	6	88
NN94	6	7	88
NO01	5	6	88
NO11	22	24	88
NN67	18	27	89
NN77	4	4	89
NN87	4	4	89
NO07	1	1	89
NO25	3	6	90
NO36	16	39	90
NO45	1	1	90
NO55	15	29	90
NO56	8	8	90
NO64	1	1	90
NO74	1	1	90
NO58	8	12	91
NO77	23	25	91
NO87	17	27	91
NJ20	17	30	92
NN99	14	22	92
NJ32	14	16	93
NJ43	5	5	93
NJ52	19	22	93
NJ53	17	31	93
NJ63	11	19	93
NJ74	19	27	93
NJ75	11	11	93
NJ85	16	23	93
NJ96	3	7	93
NK04	18	20	93
NJ00	12	28	94
NJ22	16	20	94
NJ17	9	14	95
NJ27	6	6	95
NH40	8	10	96
NH50	21	26	96
NN57	10	11	96
NN78	2	2	96

10km	# spp	# recs	VC
NN88	16	35	96
NH00	3	6	97
NM47	6	6	97
NM57	21	26	97
NM65	11	11	97
NM67	20	32	97
NM69	20	28	97
NM75	6	7	97
NM77	11	12	97
NM78	10	10	97
NM87	7	8	97
NM89	7	9	97
NM96	14	29	97
NM99	17	35	97
NN26	2	2	97
NN27	22	26	97
NN37	3	3	97
NN39	6	7	97
NN47	5	7	97
NM72	22	31	98
NN11	18	18	98
NN20	11	14	98
NN21	10	13	98
NR96	4	4	98
NR98	1	3	98
NS08	12	15	98
NS09	3	3	98
NS17	16	21	98
NS19	4	5	98
NS29	24	26	99
NR92	7	7	100
NR94	22	22	100
NS02	8	9	100
NS04	11	19	100
NR50	4	4	101
NR51	1	4	101
NR60	9	11	101
NR61	12	12	101
NR67	5	5	101
NR70	4	4	101
NR72	3	3	101
NR74	2	2	101
NR75	22	25	101
NR87	6	6	101
NR37	9	11	102
NR38	1	1	102
NR44	5	7	102
NR46	6	7	102

10km	# spp	# recs	VC
NR49	4	4	102
NR57	3	3	102
NR59	1	1	102
NR68	2	4	102
NR69	5	5	102
NL93	19	27	103
NM05	1	1	103
NM24	2	2	103
NM33	5	25	103
NM51	7	11	103
NM53	14	19	103
NG15	2	2	104
NG23	1	2	104
NG25	3	4	104
NG26	15	18	104
NG31	4	5	104
NG34	1	1	104
NG35	14	14	104
NG37	2	2	104
NG40	23	34	104
NG41	5	6	104
NG45	17	22	104
NG46	6	7	104
NG50	2	2	104
NG51	6	7	104
NG54	8	10	104
NG55	1	1	104
NG60	10	10	104
NG61	5	5	104
NG63	8	13	104
NG65	5	5	104
NM29	5	5	104
NM37	1	1	104
NM38	1	2	104
NM59	1	1	104
NB90	8	15	105
NB91	17	29	105
NC00	5	6	105
NC11	8	14	105
NG64	7	9	105
NG86	1	3	105
NG93	23	42	105
NG94	4	4	105
NG95	22	24	105
NG98	13	14	105
NH02	4	5	105
NH03	1	1	105
NH04	2	2	105

10km	# spp	# recs	VC
NH05	8	11	105
NH07	5	8	105
NH17	12	16	105
NH28	9	10	105
NH13	5	12	106
NH14	8	8	106
NH24	10	11	106
NH29	2	3	106
NH38	5	5	106
NH97	1	1	106
NC32	6	9	107
NC72	3	17	107
NC83	18	28	107
NC03	2	2	108
NC12	17	21	108
NC15	3	3	108
NC16	1	1	108
NC21	7	9	108
NC23	25	41	108
NC24	1	2	108
NC26	17	24	108
NC33	9	9	108
NC35	2	2	108
NC36	6	7	108
NC37	2	2	108
NC44	4	5	108
NC45	2	2	108
NC53	7	14	108
NC54	3	5	108
NC55	14	15	108
NC63	1	1	108
NC64	4	4	108
NC65	2	2	108
NC66	8	10	108
NC84	1	1	108
NC94	4	4	108
NC93	1	2	109
ND17	17	19	109
ND33	22	33	109
HW83	6	13	110
NA10	20	26	110
NA91	4	4	110
NA92	1	1	110
NB00	1	1	110
NB01	1	1	110
NB02	4	6	110
NB03	13	23	110
NB10	18	22	110

10km	# spp	# recs	VC
NB11	12	12	110
NB12	17	21	110
NB13	11	17	110
NB14	3	3	110
NB20	2	2	110
NB21	1	1	110
NB22	3	3	110
NB23	2	2	110
NB24	10	10	110
NB31	2	2	110
NB32	7	8	110
NB33	4	4	110
NB34	1	1	110
NB35	10	10	110
NB41	2	2	110
NB42	1	1	110
NB44	2	2	110
NB45	1	1	110
NB55	3	3	110
NB56	7	8	110
NF66	1	1	110
NF67	7	14	110
NF82	11	14	110
NF88	1	1	110
NF96	12	16	110
NF97	10	10	110
NF98	5	6	110
NF99	17	21	110
NG29	1	1	110
NL58	10	11	110
NL69	6	11	110
HY10	9	14	111
HY33	14	14	111
HY44	12	15	111
HY45	8	10	111
HY51	5	12	111
HY52	11	12	111
HY55	4	5	111
HY60	1	1	111
HY61	12	22	111
HY62	7	11	111
HY63	3	3	111
ND19	4	5	111
ND38	15	23	111
ND47	8	9	111
ND59	2	4	111
HP40	8	9	112
HP51	20	28	112

10km	# spp	# recs	VC
HT94	2	2	112
HU15	23	37	112
HU16	2	2	112
HU26	16	19	112
HU28	4	4	112
HU30	3	3	112
HU33	16	24	112
HU39	9	10	112
HU40	19	34	112
HU48	15	31	112
HU49	6	7	112
HU53	2	2	112
HU56	12	22	112
HU57	8	10	112
HU58	14	22	112
HU59	19	33	112
HU67	5	12	112
HU68	5	5	112
HZ16	1	1	112
HZ26	1	1	112

10km	# spp	# recs	VC
G94	6	14	H33
G96	5	7	H33
H12	11	11	H33
H42	3	3	H33
H53	6	6	H33
C30	4	5	H36
H07	4	5	H36
H08	8	20	H36
H17	1	1	H36
H18	13	21	H36
H27	9	11	H36
H28	18	36	H36
H36	20	50	H36
H37	9	11	H36
H38	12	20	H36
H46	9	11	H36
H49	5	11	H36
H56	7	11	H36
H57	23	43	H36
H59	3	3	H36
H69	5	10	H36
H73	6	9	H37
H81	8	9	H37
H83	19	29	H37
H91	12	16	H37
H92	15	23	H37
J01	18	35	H37
J13	5	5	H38
J15	12	16	H38
J24	3	3	H38
J31	11	32	H38
J67	4	6	H38
C84	12	18	H39
C93	8	10	H39
D02	5	8	H39
D03	2	2	H39
D11	10	13	H39
D12	25	36	H39
D23	15	28	H39
D24	22	22	H39
D32	3	4	H39
D40	13	26	H39
D41	1	1	H39
J07	3	4	H39
J28	4	4	H39
C42	9	9	H40
C50	18	24	H40
C51	18	24	H40

10km	# spp	# recs	VC
C61	3	5	H40
C71	3	4	H40
C72	3	5	H40
C80	12	19	H40
C81	2	2	H40
C82	9	10	H40
H79	22	23	H40

# NATIONAL MOTH RECORDERS' MEETING 2015

**Lyttelton Lecture Theatre, Birmingham and Midland Institute, Birmingham  
Saturday 31st January 2015**

- 10.00 am      Arrival and coffee
- 10.30 am      Welcome
- 10.35 am      National Moth Recording Scheme Update  
*Dr Zoë Randle, Butterfly Conservation*
- 10.55 am      The Cinnabar moth is on the move  
*Dr Barry Prater, Berwickshire County Moth Recorder*
- 11.20 am      Lakeland Lepidoptera: the story of moth recording in Cumbria  
*Dr Teresa Frost, Cumbria Biodiversity Data Centre*
- 11.45 am      A national scheme to record micro-moths - possible or fanciful?  
*Dr Mark Young, Aberdeenshire County Moth Recorder*
- 12:05 pm      Discussion session
- 12.30 pm      Lunch & Online Recording Demo**
- 2.15 pm      On the way North: rapid range expansion in Swedish moths  
*Dr Lars Pettersson, Lund University, Sweden*
- 2.45 pm      The Garden Moth Scheme: What can light trap data from gardens tell us?  
*Dr Adam Bates, University of Birmingham*
- 3.10pm      Insect pheromones – A tool for monitoring the country's rarest moths  
*Dr Joe Burman, Canterbury Christ Church University*
- 3.20pm      Risk assessing the use of pheromones in insect conservation  
*Ashen Oleander, Canterbury Christ Church University*
- 3.35 pm      **Tea**
- 4.20 pm      Working at height: extreme moth surveys in Wales  
*George Tordoff, Butterfly Conservation Wales*
- 4.45 pm      Discussion session & closing remarks
- 5.00 pm      Close of meeting