

Macro-moths 2015

Melissa & Andy Banthorpe

Introduction

The year turned out to be very interesting in the end for macro-moths. It had an unpromising start; spring and early summer were on the cold side, and catches were down in terms of range of species caught and abundance. Conditions gradually improved, and late autumn and early winter were very mild with some unseasonably warm days in early December. All the new county records came from the latter quarter of the year, with the last in December – Dewick's Plusia, White-speck and Black-spotted Chestnut (for details see the review of species below). These were all probably migrants, and in 2015 a good range of other migrant species was recorded in the county – Bordered Straw, Convolvulus Hawk-moth, Dark Sword-grass, Gem, Humming-bird Hawk-moth, Pearly Underwing, Ni Moth, Silver Y, Scarce Bordered Straw and Small Mottled Willow.

During the year the Recorders ran lights in the field at the following places – Flitton Moor, Flitwick Moor, Harrold-Odell Country Park, The Lodge (RSPB Sandy), Totternhoe Old Quarry, and Woburn Safari Park.

We were assisted in recording by a network of people regularly running light traps in their gardens in 2015. These were at Bedford, Biggleswade (three sites), Bromham (two sites), Carlton, Clifton (two sites), Clophill, Dunstable, Heath & Reach, Houghton Regis, Kempston (two sites), Leighton Buzzard, Lidlington, Lower Stondon, Luton (three sites), Markyate, Pottton (three sites), Renhold, Sharnbrook (two sites), Shefford, Stotfold, Studham, Toddington, Turvey, Upper Caldecote, Upper Stondon and Wilden. Traps were also run regularly at the following locations: Beeston, Marston Vale Country Park (MVCP), The Lodge (RSPB Sandy), Studham Common and Wrestlingworth Gravel Pit NR.

In addition, with the kind assistance of Chris Shortall we have access to the records from the Rothamsted Insect Survey (RIS) traps in the county. These are situated at Cockayne Hatley and Eaton Bray. Ian Woiwod continues to operate and identify the macro-moths from the Cockayne Hatley RIS trap, and Melissa identifies the macros from the Eaton Bray RIS trap, which is operated by Graham Buss.

The recording boundary for moths in Bedfordshire is that of the Watsonian Vice-county 30. For more details of this see the article in the 2009 Journal (Banthorpe 2010).

Review

The following list includes species of interest recorded in VC30 during 2015. It also includes a couple of interesting records from 2014, which were not received before that report was published. We are keen to receive records for all species, even those regarded as very common, as without these records the dataset is incomplete and we will not be able to track future changes in abundance and distribution.

Most of the species analysis is based on the 24,027 records for 2015 that had been uploaded to the county database by mid-April 2015. However, some records have been gleaned from emails as a few of our regular trappers had not sent in their records by the

time the report was written. We have sight of the Cockayne Hatley RIS trap data for 2015 courtesy of Ian Woivod but we have yet to receive it from Rothamsted in a format easily importable to Mapmate.

The list is based on that of Agassiz, Beavan & Heckford (2013), which was a revised taxonomic list and numbering system of British Lepidoptera. This list has subsequently been updated and corrected; the new version can be downloaded via the Natural History Museum's website. The number in square brackets refers to a species' Bradley-Fletcher number (Bradley 2000), which were used in previous reports.

A list of the macro-moths of VC30 with their current status and acceptable flight-date ranges is on the Beds Moth Group (BMG) website www.vc30moths.org.uk or available from the Recorders on request.

Hepialidae

3.003 Map-winged Swift *Korscheltellus fusconebulosa* (DeG.) [18]

A singleton was trapped at Clifton on 17th July (RM). Prior to this, the species was last recorded in the county in 2012.

3.004 Gold Swift *Phymatopus hecta* (L.) [16]

One was found during the day at West Wood on 7th June (TT).

Sesiidae

52.002 Hornet Moth *Sesia apiformis* (Cl.) [Nb] [370]

There were three reports of Hornet Moth during the year, all relating to adults. A singleton was found on a tree trunk near a pupal case early afternoon at Cranfield University Campus on 19th June (AN); and in Bedford at the same location, three (a mating pair and a freshly-emerged male) were seen on 25th June and a mating pair on 26th June (BH).

52.010 Orange-tailed Clearwing *Synanthedon andrenaeformis* (Lasp.) [Nb] [378]

Two males attracted to a pheromone lure at Stopsley Common on 9th July (AD, MR & SW) was the only record in 2015.

52.011 Red-belted Clearwing *Synanthedon myopaeformis* (Borkh.) [Nb] [379]

In 2015, singletons were seen (without the use of lures) at Langford on 25th June (SB) and Chicksands Wood on 10th July (JP).

An extra record for 2014 came to light in late 2015. In Clifton on 3rd July a mating pair was found resting on foliage near an apple tree in the observer's garden (BC). It appears to be the first time a mating pair has been reported in the county. Most of the records are of males to pheromone lure.

52.014 Six-belted Clearwing *Bembecia ichneumoniformis* ([D. & S.]) [Nb] [382]

Adults were swept from vegetation at Colesdon (2) on 9th July (JOS) and Upper Sundon Chalk Quarry (1) on 21st July (AMB).

Lasiocampidae

66.005 Small Eggar *Eriogaster lanestris* (L.) [Nb] [1633]

No adults or larvae were reported this year, though at least one site, where they have occurred before, was checked for larvae.

Sphingidae

69.004 Convolutus Hawk-moth *Agrius convolvuli* (L.) [Migrant] [1972]

One, probably caught and brought in by a cat, was found moribund indoors in a house in Caddington on 2nd September (SBa det. AMB & MGB).

69.010 Humming-bird Hawk-moth *Macroglossum stellatarum* (L.) [Migrant] [1984]

There were 59 records, including two larval, of this species in 2015. The first adult was seen at Girtford on 22nd May (DJO), and the last adult was found at Stotfold, in the porch of the Salvation Army building, on 15th November (PH). The maximum number of adults seen was two at The Lodge (RSPB Sandy) on 10th July (IH) and 16th July (WG). Larvae were also reported at The Lodge, with singletons found on 20th August (IH) and 11th September (GF).

Geometridae

70.025 Lesser Cream Wave *Scopula immutata* (L.) [1692]

Two were seen during the Invertebrate Day at Flitwick Moor on 4th July (AMB & MGB), along the footpath near the river. Prior to this, the species was last recorded in the county in 2012.

70.038 Vestal *Rhodometra sacraria* (L.) [Migrant] [1716]

Singletons were trapped at Carlton on 23rd August (HAS) and The Lodge (RSPB Sandy) on 26th August (SCB).

70.043 Chalk Carpet *Scotopteryx bipunctaria* ssp. *cretata* (Prout) [Nb] [1731]

At Upper Sundon Chalk Quarry four were seen during the day on 21st July (AMB & MGB). Singletons trapped at Leighton Buzzard on 27th June (AW) and Markyate on 15th August (DG) were the only other records of the species in 2015.

70.047 Gem *Nycterosea obstipata* (Fabr.) Migrant [1720]

A singleton was trapped at Biggleswade on 16th August (SCB).

70.056 Royal Mantle *Catarhoe cuculata* (Hufn.) [1736]

Just one was recorded in 2015 and it was trapped in Lower Stondon on 10th July (AMB & MGB). It is still a rare species in the county, with just 12 records in the database.

70.057 Ruddy Carpet *Catarhoe rubidata* ([D. & S.]) [Nb] [1735]

Singletons were trapped at Biggleswade on 24th June (LRB) and Lower Stondon on 1st July (AMB & MGB). The species has been recorded in Lionel's garden before; but it was a new addition to the Recorders' garden and new to the 10km square, TL13.

70.090 Chevron *Eulithis testata* (L.) [1755]

Again, just one was trapped this year, and this time at Heath & Reach on 12th September (MH). This is a new site for it and also a new 10km square, SP92.

70.096 Autumn Green Carpet *Chloroclysta miata* (L.) [1761]

One trapped at Shefford on 17th October (PH, seen by AMB & MGB) was a complete surprise and the first verified record since 1908. It had been thought the species was extinct in VC30. In Arnold *et al* (1997) in the species' account, it is noted that there were two specimens labelled "Bedford 28/10/1908" in W.Temple's collection. The species was also recorded in Colonel S.H.Kershaw's notebooks between 1933 and 1948 for Aspley Heath but it appears no specimens have been seen. Autumn Green Carpet has also been reported from The Lodge (RSPB Sandy) on three occasions but none of the records have supporting evidence. The first from 1975 in the Sandy II RIS trap is

mentioned in Arnold *et al* but the other two records are from more recent times: one in November 2001 and one in October 2008 (DB pers. comm. 2015).

70.098 Dark Marbled Carpet *Dysstroma citrata* (L.) [1762]

A male of this species trapped at Sharnbrook on 17th September was the first confirmed record in the county since 2001 (DVM inc. gendet).

70.143 Sloe Pug *Pasiphila chloerata* (Mab.) [1859]

The only confirmed record of this species in 2015 was of a larva beaten from Blackthorn blossom at Marston Thrift on 23rd April (AMB & MGB).

70.177 Satyr Pug *Eupithecia satyrata* (Hb.) [1828]

This is a rare pug in the county. In 2014 a larva looking very much like this species was found feeding on knapweed on Whipsnade Downs on 3rd August (AMB & MGB). It was bred through and emerged in the summer of 2015. It still looked a good candidate for Satyr Pug and its identity was confirmed by gendet in early 2016 (AMB).

70.193 Lesser Treble-bar *Aplocera efformata* (Guen) [1868]

Two females to MV light at Totternhoe Old Quarry on 28th August (AMB & MGB, gendet AMB) were the seventh record for the county.

70.195 Streak *Chesias legatella* ([D. & S.]) [1864]

The only records of this species in 2015 were larval. All were beaten from Broom – Aspley Heath on 23rd April (10), Cooper's Hill on 30th April (1), and the Pinnacle, Sandy on 1st May (7) (AMB & MGB). These are also the first larval records for the county.

70.203 Orange Underwing *Archiearis parthenias* (L.) [1661]

Singletons were reported at The Lodge (RSPB Sandy) on 23rd March (CCa) and Potton Wood on 23rd April (IPW).

72.204x Orange Underwing/Light Orange Underwing agg. [1662x]

If the critical identification features cannot be seen to separate the two species, records will be assigned to the aggregate group. Note that Light Orange Underwing has changed genus; it is now *Boudinotiana notha* (Hb) and has the number 72.204 in the new checklist.

An Orange Underwing type, probably *parthenias*, was seen at King's Wood Heath & Reach on 12th March (AMB & MGB). It was flying around birches in the afternoon sun.

70.205 Magpie Moth *Abraxas grossulariata* (L.) [1884]

Of note was a mass emergence of this species – several hundreds, possibly even over a thousand – reported at St John's industrial estate in Bedford on the evening of 18th June (SE).

70.280 Clouded Silver *Lomographa temerata* ([D. & S.]) [1958]

Amongst the 104 records received for this species were two larval ones. Single larvae were beaten off Blackthorn at Brown's Wood on 5th August and off willow at Centenary Wood on 10th September (MGB). These were the first larval records for the county.

Notodontidae

71.016 Great Prominent *Peridea anceps* (Goeze) [2005]

There were three records of this species in 2015: Flitwick Moor 10th May (1) (AMB & MGB) and Woburn Safari Park on 23rd May (4) (AMB & MGB), which were both new sites for the species; and Heath & Reach (1) on 5th June (MH).

Erebidae

72.012 Brown-tail *Euproctis chrysorrhoea* (L.) [2029]

Of note, several hundred larval webs were seen on small hawthorns, oaks and rose bushes on the road verges of the A421 on 28th February (AMB).

72.026 Garden Tiger *Arctia caja* (L.) [2057]

One was trapped in Sharnbrook on 6th August (BD).

72.029 Scarlet Tiger *Callimorpha dominula* (L.) [2068]

Adults were recorded at Bedford, Flitwick Moor, Heath & Reach, Leighton Buzzard and Upper Caldecote, which was a new site for the species. A maximum of 34 adults were seen at Flitwick Moor on 4th July (AMB & MGB). Larvae were reported from Aspley Heath and Heath & Reach.

72.030 Jersey Tiger *Euplagia quadripunctaria* (Poda) [2067] [Nb]

Adults were reported from Bedford (4 sites, two were new), Biddenham (a new site), Bromham (3 sites, one of which was new), Clapham (a new site) and Kempston.

72.042 Red-necked Footman *Atolmis rubricollis* (L.) [2039]

Singletons were trapped at The Lodge (RSPB Sandy) on 25th and 29th June (SCB) and 1st July (CCa) and Biggleswade on 29th June (LRB).

72.052 Dotted Fan-foot *Macrochilo cribrumalis* (Hb.) [Nb] [2493]

One to MV light at Flitwick Moor on 4th July (AMB & MGB) was the third county record.

72.066 Waved Black *Parascotia fuliginaria* (L.) [Nb] [2475]

A single larva found at Woburn Safari Park on 22nd May by a staff member (HT det. MGB), during a joint bioblitz event with Beds Invertebrate Group, was the first larval record for the county and the seventh county record of the species. The larva was bred through successfully by MGB and released.

Noctuidae

73.003 Ni Moth *Trichoplusia ni* (Hb.) [Migrant] [2432]

A singleton of this scarce migrant was trapped at Biggleswade on 15th November (LRB, conf. from specimen MGB). It was the second county record. The first was trapped in September 2006.

73.010 Dewick's Plusia *Macdunnoughia confusa* (Steph.) [Migrant] [2436]

This relatively rare migrant in Britain was added to the county list when one was trapped in Upper Stondon on 10th September (JE, conf. from photo AMB & MGB).

73.015 Silver Y *Autographa gamma* (L.) [Migrant] [2441]

There were 267 records received in 2015. The first was one seen at Sandhouse Lane NR on 11th May (JR); the last was one trapped at Upper Caldecote on 29th December (MB, KBu & LARB). The maximum number recorded was six, which were trapped at Bromham (MiH & MaH) and Luton (HJG) on 20th July, and Luton on 23rd July (AG).

73.047 Coronet *Craniophora ligustri* ([D. & S.]) [2291]

In 2015 there were seven records for this species, the highest in any year. They were all trapped in July – at Sharnbrook on the 10th (1) (BD), 14th (3), 18th (1), 19th (1) and 21st (1) (DVM), and at Leighton Buzzard on the 11th (1) and 13th (1) (AW).

73.059 Toadflax Brocade *Calophasia lunula* (Hufn.) [RDB3] [2223]

Adults were recorded at Biggleswade (two sites), Bromham, Clifton (new site), Dunstable (new site), Leighton Buzzard (new site), Luton (three sites), Potton (new site), Stotfold (new site) and Upper Caldecote. Larvae were recorded at Luton (one site) and Potton (one site – different to where an adult was recorded but not a new site).

73.074 Bordered Straw *Heliothis peltigera* ([D. & S.]) [Migrant] [2403]

There were 14 individuals recorded in 2015, the first since 2011. The details were as follows: Upper Caldecote on 7th May and 6th June (MB, KBu & LARB); Toddington on 5th June (JP); Dunstable (LC) and Sharnbrook (DVM) on 11th June; Biggleswade on 14th June and 29th August (LRB); Heath & Reach on 15th June (MH); Biggleswade on 16th and 27th June (SCB); Sharpenhoe Clappers on 24th June (LC); Shefford on 25th and 26th June (PH); and Clifton on 27th August (RM).

73.076 Scarce Bordered Straw *Helicoverpa armigera* (Hb.) [Migrant] [2400]

Singletons were trapped at The Lodge (RSPB Sandy) on 26th August (SCB) and Luton on 19th December (AG).

73.082 Tree-lichen Beauty *Cryphia algae* (Fabr.) [2292]

The species was recorded at Biggleswade, in the Cockayne Hatley RIS trap (a new site), at Luton and Upper Caldecote.

73.087 Small Mottled Willow *Spodoptera exigua* (Hb.) [Migrant] [2385]

There were 11 records in 2015, the first since 2012. The details were as follows: Upper Caldecote on 12th June and 2nd, 4th, 8th, 12th and 17th August (MB, KBu & LARB); Biggleswade on 27th June (LRB); Potton on 16th July and 7th September (2) (WG); Shefford on 27th August (PH); and Lower Stondon on 31st August (AMB & MGB).

73.100 Silky Wainscot *Chilodes maritimus* (Tausch.) [2391]

The species was recorded six times in 2015: at Upper Caldecote on 16th June, 10th and 14th July (MB, KBu & LARB) – all singletons; one at Biggleswade on 1st July (LRB); three at MVCP on 17th July (AD); and one at Potton on 20th July (WG).

73.119 Crescent *Helotropha leucostigma leucostigma* (Hb) [2368]

Singletons were trapped at two new sites this year: at Biggleswade on 29th July (LRB) and Luton on 8th August (HJG). There are now 13 records in the database and includes an extra record from 2008 that was not included in the macro-moth report for that year. This extra record was from Bedford on 14th July 2008 and was trapped by Jason Falconer. He had sent a photo to the Recorders but it had been mis-identified at the time. It was re-identified in late 2015.

73.142 Small Rufous *Coenobia rufa* (Haw.) [2379]

One was trapped at Clifton on 9th August (ARO det. MGB).

73.196 Black-spotted Chestnut *Conistra rubiginosa* (Scop.) [2259a]

This was an unexpected addition to the county list in 2015. One was trapped at Biggleswade on 17th December (LRB conf. MGB) and was in the fridge of the Recorders when a second individual was trapped the following day, the 18th, at Upper Caldecote (MB, KBu & LARB). For a short time both were in our possession. It is not certain whether these were continental migrants or wanderers from a small population in Kent.

73.214 White-spotted Pinion *Cosmia diffinis* (L.) [Na] [2317]

Singletons were trapped on three occasions at Upper Caldecote in 2015: 2nd, 20th and 23rd August (MB, KBu & LARB).

73.241 Pine Beauty *Panolis flammea* ([D. & S.]) [2179]

Amongst the 12 records received in 2015 was one of a single larva. This was beaten off Scot's Pine during a Beds Invertebrate Group meeting at Woburn Forest Center Parcs on 11th June (ARO det. MGB). This is the second larval record for the county, the first being in 1984.

73.257 Beautiful Yellow Underwing *Anarta myrtilli* (L.) [2142]

The only record in 2015 of this species was a larva taken by *Ammophila sabulosa*, a sand wasp, at The Lodge (RSPB Sandy) on 7th July (IPW).

73.296 White-speck *Mythimna unipuncta* (Haw.) [Migrant] [2203]

This was added to the county list in 2015, when a singleton was trapped at Pottton on 6th November (CCa conf. AMB & MGB).

73.302 Obscure Wainscot *Leucania obsoleta* (Hb.) [2204]

There were three records in 2015, all of singletons. These were also all trapped at new sites: MVCP on 19th June (AD), Flitwick Moor on 4th July (AMB & MGB) and Turvey Abbey on 5th July (BrJM).

73.307 Pearly Underwing *Peridroma saucia* (Hb.) [2119]

Singletons were trapped at Biggleswade on 4th October and 4th November (LRB) and at The Lodge (RSPB Sandy) on 9th November (DB).

73.327 Dark Sword-grass *Agrotis ipsilon* (Hufn.) [Migrant] [2091]

There were 17 records received in 2015. The first was trapped at Luton on 16th June (AG) and the last trapped at Upper Caldecote on 4th November (MB, KBu & LARB). A maximum of two were trapped at Carlton on 23rd August (HAS).

73.337 White-marked *Cerastis leucographa* ([D. & S.]) [2140]

A singleton was attracted to MV light at Flitwick Moor on 24th April (AMB & MGB). This is a new site for the species and only the fourth record for the county.

Migrant records are forwarded to the appropriate editor for inclusion in the Immigration of Lepidoptera to the British Isles Report for the *Entomologists Record and Journal of Variation*.

All records are held by the Bedfordshire and Luton Biodiversity Recording and Monitoring Centre and updated regularly. In addition the dataset is forwarded to the National Moth Recording Scheme annually.

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Melissa and Andy Banthorpe are now the Society's joint Recorders for all Moths, a position they hold in an honorary capacity, having taken on the Micros as well in spring 2016.