

Leicestershire & Rutland (VC55) Moth Review of 2019

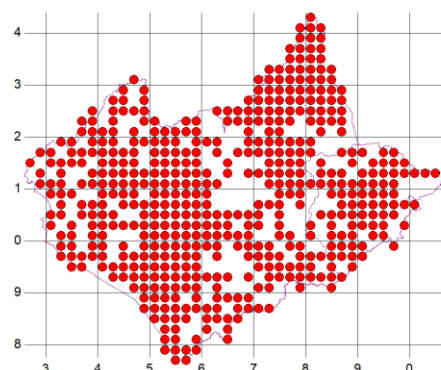
Adrian Russell, County Moth Recorder

Introduction

This is a review of some of the more interesting and noteworthy moths recorded in VC55 in 2019. It is not solely restricted to the rarest moth species recorded in the year, otherwise the same species would feature year after year. However, I have endeavoured to include all species recorded from VC55 for the first time and provide an update on some of the species whose status and distribution is rapidly changing (especially new colonisers).

This report would not be possible without the excellent work of the many recorders in the county who submit moth records, be they hard-core moth trappers or casual recorders who simply record the moths that they see on their travels (and these records are often more useful than they might think!). Here are a few statistics that reflect moth recording activity in 2019:

- Total number of moth records in 2019: **80,852**
- Number of moth species recorded in 2019: **1,050**
- Total number of moths recorded in 2019: **334,315**
- Number of people submitting moth records: **245**
- Number of people operating a garden moth trap: **76**
- Different locations from which moths were recorded: **1,563**
- Tetrads from which moths were recorded (map right): **510**



The band of leafmine recorders is slowly increasing in numbers and this is reflected in the map above, as the recording of leafmines lends itself to “square-bashing”, being a daytime activity that can be undertaken outside of the main season and in all weathers. Regrettably, it is an all too compulsive activity!

The table below lists the 10 species of macromoth most frequently recorded in 2019. Were micromoths included, Light Brown Apple Moth would take 4th place with 1,448 records. Totals for 2018 are also shown for comparison and the two species from that list that failed to make the top 10 this year were Flame Shoulder (7th with 1,176 records) and Silver Y (9th with 1,072 records).

Code	Taxon	Vernacular	2019		2018	
			Records	Rank	Records	Rank
73.342	Noctua pronuba	Large Yellow Underwing	1,976	1	1,918	1
73.359	Xestia c-nigrum	Setaceous Hebrew Character	1,542	2	1,302	4
73.317	Agrotis exclamationis	Heart and Dart	1,451	3	1,602	2
70.226	Opisthograptis luteolata	Brimstone Moth	1,182	4	1,447	3
73.345	Noctua comes	Lesser Yellow Underwing	1,167	5	845	-
73.162	Apamea monoglypha	Dark Arches	1,127	6	980	10
73.325	Agrotis puta	Shuttle-shaped Dart	1,116	7	1,218	5
70.016	Idaea aversata	Riband Wave	1,054	8	1,107	8
70.258	Peribatodes rhomboidaria	Willow Beauty	994	9	1,193	6
73.099	Hoplodrina ambigua	Vine's Rustic	859	10	473	-

With the addition of 2019 records, the VC55 database now holds: 878,430 moth records (1,037,718 Lepidoptera records).

All recorders are thanked for the records. It is not only rare/noteworthy records that are important; ALL records are valuable as they help to understand the status and distribution of species in VC55, i.e., enabling changes in numbers of even the commonest species to be analysed, improving the accuracy of phenology charts and the representativeness of distribution maps.

Thanks must also go to everyone retaining specimens for identification confirmation/dissection and for photography, and to all of those involved in assisting with the identification of photographs and specimens. Photographs can, in some circumstances, act as permanent voucher record, as well as being useful means of illustrating reports such as this. All the photographs in this report are photos of 2019 moths taken either by the recorder or Adrian Russell.

Sadly, we have lost two local lepidopterists in the last year.

Derek Spicer died on 30th March 2020. Derek was an international expert in conifers and ran Kibworth Conifers with his wife Carol for many years. In 2016 he contacted me to say that he would be interested in recording moths in his South Kilworth Garden. After a couple of introductory sessions, Derek soon took over himself and regularly ran a moth trap in his garden over the next four years. His trap proved extremely productive and he recorded many noteworthy species (as can be seen from this report), dramatically improving our knowledge of moths in this under-recorded area of VC55.

Leicestershire lost one of its foremost naturalists with the death of Peter Gamble on 21st September 2020, aged 93. Peter was born and lived all of his life in Quorn and throughout his life demonstrated an outstanding passion for natural history, especially in relation to the Charnwood Forest area. He became an expert ornithologist and botanist and was one of the principal contributors to "The Flora of Leicestershire" published in 1988. Peter started recording butterflies and moths in the 1960's and was one of the first entomologists to undertake MV moth trapping in the VC55 countryside. Many moth recorders of my generation benefited enormously from his knowledge and experience. When I first started computerising moth records in the 1990's, Peter kindly photocopied all of his field notebooks for me, enabling all of his records (in full detail) to be entered into the VC55 database in full detail. On many occasions I wondered at the species and the numbers of moths that he recorded in those earlier decades. He recorded at many key sites in Charnwood Forest in those early days, discovering many noteworthy species, some of which would soon become extinct in the County. The Argent and Sable that he recorded flying in sunshine in Buddon Wood in 1962 was the last sighting of this moth in VC55. Despite his wealth of knowledge, Peter was a very modest man and a good friend to so many local naturalists. He will be sadly missed.

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Noteworthy Species and Records

The list is presented in Agassiz, Beavan & Heckford (2013) (ABH) checklist order, with Bradley numbers in brackets.

2.003 (8) *Eriocrania unimaculella*

On 19/05/2019 Mark Skevington recorded this species as a tenanted mine on Birch at Burrow Wood, Charley. This is only the second record of this species from VC55, the previous being an adult moth netted by Mark by the birches along Kinchley Lane, by Swithland Reservoir in 2005.

2.005 (10) *Eriocrania salopiella*

First confirmed record for VC55

This birch leafminer was recorded as an adult moth (photo below) by Mark Skevington at Ulverscroft N.R. on 18/04/2019 in the course of a moth trapping session. It was also recorded as a leafmine on birch at Grange Wood, Netherseal on 20/05/2019 by Adrian Russell (photo below) and at Newfields Colliery, Moira by Sue Timms on 01/07/2019. These are the first confirmed records of this species from VC55.



2.006 (11) *Eriocrania cicatricella*

Also a birch leafminer, this species was recorded as an adult moth (photo right) found on a birch trunk at Charnwood Lodge N.R. on 11/04/2019 by Keith Tailby and Mark Hammond, the latter confirming the identification by dissection. There are only two previous records of this species from VC55, both from the Kinchley Lane/Swithland Reservoir margins, in 2005 and 2006.

2.008 (12) *Eriocrania sangii*

Yet another birch leafminer, with only 5 previous records, this species was recorded on three occasions in 2019: an adult at light at Grange Wood on 20/03/2019 by Graham Finch and as a leafmine from Bagworth Heath on 06/05/2019 and Hill Hole Quarry, Markfield on 13/05/2019, by Sue Timms in both instances.



4.012 (102) *Stigmella aceris*

This species makes a very distinctive mine in Field Maple (and also Norway Maple). It was first recorded in VC55 in 2018, from mines found in 8 different locations, mainly in the city of Leicester. In 2019, there were 32 records and it's clear that this species can now probably be found across the whole of VC55. Most records have again come from within the city, though this is partly due to more recorder activity here. However, it is also extremely variable in its presence, for example, mines may be found in profusion on small/planted Field Maples in a city park, but completely absent (or only found after extensive searching) from extensive Field Maple hedgerows in rural areas.



4.005 (110) *Stigmella betulicola*

The first record of this species in VC55 dates back to before 1892 record by virtue of a record from Whitwick by John Sang (the entomologist in whose honour *Eriocrania sangii* and *Syncopacma sangiella* were named). The only other record was by another nationally renowned entomologist, Maitland Emmet, in 1972-1973, from an unknown location in VC55. With 3 records from the north-west of the County in 2019, Sue Timms adds her name to this list of recorders.

4.006 (113) *Stigmella sakhalinella*

First record for VC55

Sue Timms' work with Birch leafminers also produced the first VC55 record of this species from Gilroes Cemetery, Leicester on 08/11/2019 (photo below left). The identification was confirmed by Rob Edmunds.



6.005 (157) *Heliozela hammoniella*

First record for VC55

Graham Finch also had success with Birch leafminers in Cloud Wood, from where he recorded this species on 07/08/2019, a first for VC55 (photo above right). He also recorded it from Albert Village lake on 22/09/2019.

11.004 (177) Lesser Lichen Case-bearer *Dahlica inconspicuell*

First record for VC55

With admirable determination, Hazel Graves saw, chased and captured an inconspicuous-looking micro at Charnwood Lodge NR on 28/03/2019. The moth was photographed by Annie Smith (below left) and subsequently identified as this appropriately named species. During a follow-up visit to the site on 11/04/2019, Keith Tailby and Mark Hammond recorded larval cases of this species (below right) from the same area and successfully reared out the adult moth.



11.005 (179) *Dahlica lichenella* Lichen Case-bearer

Since 2005, larval cases of this species have regularly been recorded on Swithland Reservoir dam walls, but from nowhere else in VC55. On 11/04/2019 Keith Tailby and Mark Hammond recorded them from Charnwood Lodge, but Mark Skevington also recorded one (photo right) from Ketton Quarry NR on 29/03/2019, a first for Rutland.

**12.044 (212) *Haplotinea insectella* First post-VCH record**

This species was caught in Andy Johnson's Dadlington garden on 10/07/2019, the first record of this species from VC55 since the Leicestershire Victoria County History (VCH) of 1907, where it was listed as having been recorded from Bardon and Kibworth.

12.045 (278a) *Opogona omoscopia*

Ted Gaten recorded this species from his Thurlaston garden on 20/08/2019 (photo right).

The somewhat convoluted history of this species is best summarised by Heckford (2017). Essentially, it is a species whose larvae feed on dead and decaying plant material and is usually associated with greenhouses in northern Europe, though it is established in the wild in both Guernsey and the Scilly Isles. It has also been recorded in the wild from Hampshire in 2005 and from Cleveland in 2008. Therefore, Ted's record from Thurlaston appears to be only the third wild-caught record of this species from mainland Britain. It is perhaps worth noting that Ted's garden is immediately adjacent to a garden centre!

First record for VC55

**14.013 (276) *Bucculatrix demaryella***

Graham Calow recorded this species for the first time from a mine on Birch at Croft Glebe on 06/11/2019 (photo below left). Adrian Russell also recorded from Wilton Park, Melton Mowbray on 15/11/2019 (photo below right).

First record for VC55



20.017 (416) *Argyresthia glaucinella***First post-VCH record**

This is another species that was first recorded from VC55 by John Sang, as the note published *The Entomologist* in 1883 below details. In the Victoria County History of Leicester (1907), the location of this record was revealed to be "Bradgate". Whether or not this species survives at Bradgate is unknown, but Graham Calow recorded it from Stockhill Farm, Cosby on 28/06/2019 (photo below right) – a mere 136 years later!

ARGYRESTHIA GLAUCINELLA NEAR LEICESTER.—I took a journey this summer to Leicester, in the hope of again taking this rare species, which I met with there in fair quantity some years ago. I found them very scarce, and was correspondingly disappointed. The only other captures of interest were *Xysmatodoma melanella* and *Bucculatrix ulmella*, singly. When there before I took over a hundred *Argyresthia glaucinella*, and might have taken any quantity. *X. melanella* was not very uncommon, and *Tinea fulvimitrella* and *T. semifulvella* well represented, both of which were absent on this last occasion.—J. SANG ; 181, Horninglow Street, Burton-on-Trent.

**16.004 (427) *Yponomeuta cagnagella* Spindle Ermine**

Larval webs of this species are not particularly uncommon and can be both conspicuous as Andrew Dejardin found in Empingham on 25/05/2019 (photo) or extensive as found along Burbage Common on 30/05/2019 where Graham Calow reported an infestation over 200m of hedgerow.



But the main point of this note is to remind recorders of the fact that adult moths of this species, Orchard Ermine, Apple Ermine and Willow Ermine cannot be separated, even if dissected; they should be recorded as "Ermine sp." The only means of recording these moths to species level is on the basis of larval webs or adults reared from a known larval web. Hence, we have relatively few confirmed records of these species and recorders are

encouraged to look out for and submit records of larval webs, the larval foodplants being:

<i>Yponomeuta padella</i>	Orchard Ermine	Hawthorn, Blackthorn & Cherry
<i>Yponomeuta malinellus</i>	Apple Ermine	Apple
<i>Yponomeuta cagnagella</i>	Spindle Ermine	Spindle & <i>Euonymus japonicus</i>
<i>Yponomeuta rorrella</i>	Willow Ermine	White Willow & occasionally Grey Willow.

It would also be good to rear out adult moths from such larval webs, so as to provide both voucher specimens for the Leicestershire reference collection and for photographs as, apart from Spindle Ermine, we currently have neither.

35.0191 (857a) *Anarsia innoxia***First record for VC55**

On 04/07/2019 Steve Lister caught an unfamiliar moth (photo right) that he retained for identification in which, upon dissection by Andy Mackay, turned out to be the first VC55 record of *Anarsia innoxia*.

This species has only recently been added to the British list following its separation from *Anarsia lineatella* (Peach Twig Borer), which is largely an adventive species associated with imported fruit. *Anarsia innoxia*, on the other hand, appears to be a resident of south-east England, with the earliest record being from Sussex in 1991 (Palmer, 2017). By 2018, it had expanded its range as far north as Lincolnshire and we now also know that it's present in VC55.



49.023 (971) *Pandemis cinnamomeana*

This is not a particularly rare species in VC55, though it's primarily a woodland species that rarely turns up in gardens, unlike most of its congeners. In 2019 it was recorded from Cottesmore Wood on 22/06/2019 by Adrian Russell (photo right), from The Drift, Croxton Kerrial on 22/07/2019 by Graham & Anona Finch and from Rob Cooke's Geeston garden on 26/07/2019.

The photograph shows one of the key diagnostic features of this species: the white frons to the head and labial palps, which are not shared by other *Pandemis* spp. Unfortunately, this doesn't help with the identification of females!

**49.256 (1138a) *Epinotia cinerea***

Andy Mackay recorded this species from his Evington garden in 30/06/2019 and Malcolm Hillier recorded it from Clipsham Quarry on 25/08/2019. The only previous record was from Western Park in 2014.

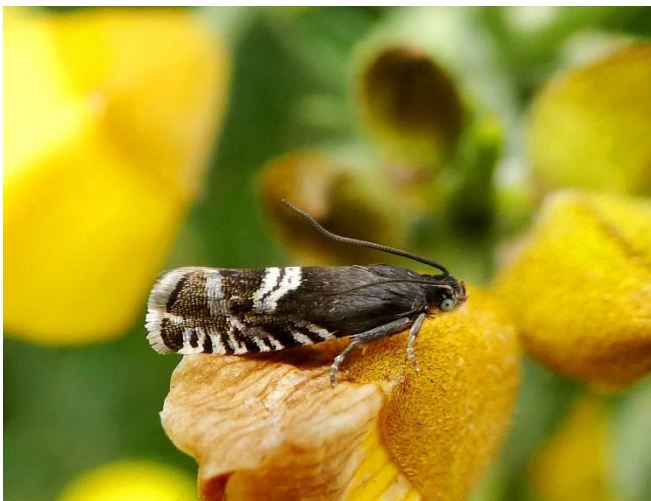
49.055 (1018) *Cnephasia communana*

First confirmed record for VC55

The *Cnephasias* are another tricky group. Apart from *Cnephasia longana*, which is distinctive in appearance, all other species of this genus can only be reliably recorded by dissection of the genitalia. One such moth caught in Dave Gamble's Leicester Forest East garden was dissected by Andy Mackay and determined as *Cnephasia communana*, the first confirmed record of this species from VC55. There are a handful of unconfirmed records of this species from the county and also 13 specimens allegedly of this species in the Leics. Museum's VC55 reference collection and which can hopefully be dissected in the near future to determine their true identity.

49.349 1242 *Grapholita internana*

There are only five pre-2019 records of this gorse-feeding species from VC55. It was recorded twice in 2019, both being daytime records: firstly, from Charnwood Lodge on 02/05/2019 when it was recorded and superbly photographed by Kate Nightingale (below left), followed by a record on 06/05/2019 from Hicks Lodge, Moira, by Sean Wileman.

**49.351 (1252) *Grapholita lunulana***

First record for VC55

As another example of the merits of daytime recording of micromoths, on 11/05/2019 Sue Timms recorded and photographed (above right) the first example of *Grapholita lunulana* from VC55 at the former Newfields Colliery heathland site. It also adds to the list of noteworthy species recorded from this superb heathland site.

50.001 (162) *Cossus cossus* Goat Moth

There is a bit of a story behind one of the most exciting records of 2019:

When processing moth records, I always start with those records received directly from recorders, followed by those received indirectly via NatureSpot (though many of the recorders who submit records via that route are known to me). This then leaves records received via iRecord, though in this instance, I rarely know most the recorders. Assessing the reliability of some of these records can be an issue, as one often has no idea of the level of expertise of the recorder involved. For this reason, some County Moth Recorders completely ignore iRecord records. I try to extract as many viable records as possible from this dataset. Accompanying photographs often enable identifications to be confirmed or, as is often the case, misidentifications can be spotted.

As I was working my way through the 13,678 iRecord records for 2019, I spotted a Goat Moth record and wondered what the associated photo would actually turn out to be. Yet it was indeed a Goat Moth (photo right)!



The last confirmed record of this species from VC55 was way back in 1950, so I was very keen to confirm the details of such an important record. It turned out that the record had been submitted by Sallie Corfield who attended one of my moth breakfast events in the National Forest a few years ago and who I had subsequently supplied with a moth trap. But Sallie lived in Blackfordby, whereas the grid reference for this was SK313168, near Moira. I contacted Sallie and at first she was a little puzzled as she had no record of running her moth trap on that particular night. Then she remembered that she had photographed it in the "Moth Hotel"/walk-in moth trap (photos below) at the Timber Festival at Feanedock, Moira on the morning of Sunday 07/07/2019 – an event that I was intimately involved in! So, this means that when going through the catch inside the trap that morning, I must have missed the Goat Moth. Keith Tailby and Graham Finch had also kindly come along to the event that weekend to provide assistance, though I can't recall if they were with me on that particular morning. Either way, the Goat Moth escaped our attention, despite hordes of visitors passing through that morning, all examining the egg trays inside and asking about the identity of the many moths that they uncovered.



The final question: who should go down as the recorder? I had set the "trap", but without Sallie's intervention the Goat Moth wouldn't have been recorded; hence, I have decided that it is only right that she should go down as the recorder.

This sighting also probably means that there will be infested trees in the vicinity and hopefully this will provide an incentive for moth recorders to try and search these out from the many publicly accessible National Forest sites in the Moira area.

52.010 (378) *Synanthedon andrenaeformis* Orange-tailed Clearwing

This is one of our more elusive clearwings that, prior to 2019, had only been recorded once, from Tinwell in 2005. So, it was reassuring to find it still present at the Tinwell site, with two being recorded on 29/06/2019 by Adrian Russell and 3 on 30/06/2019 by Mark Skevington (photo right).

In both of those instances the moths were attracted to the VES pheromone lure. Whilst using the same lure in Pickworth Great Wood on 29/06/2019 Adrian Russell recorded an Orange-tailed Clearwing from there too, making it only the second known site for this species in VC55. However, the intended target on that occasion, the Yellow-legged Clearwing failed to make an appearance and so dashed hopes of recording that species from Rutland for the first time.



53.001 (173) *Apoda limacodes* The Festoon

Two moths of this species were recorded by Mark Skevington and Adrian Russell at Ketton Quarry on 29/06/2019 (Mark's photo right). This is the third occasion on which this species has been recorded from the reserve and, having also been recorded from Geeston (which is contiguous with Ketton), this must surely indicate that this species is resident in the immediate vicinity, despite being considered as a species of mature woodland. There are some oak trees within the reserve as well as a fair-sized Beech plantation – it would be interesting to discover exactly where it is breeding in the area.



62.010 (1449) *Elegia similella*

Mark Skevington recorded this species from Ketton Quarry on 29/06/2019 (photo right). This is generally considered to be a fairly rare species of oak woodland in southern England, so one might wonder what it's doing at Ketton Quarry (the same applies to the Festoon and quite a few other species regularly recorded from the reserve). Its range appears to have expanded northwards to not far south of Rutland, so it will be interesting to see if it establishes itself in VC55 woodland.

First record for VC55



62.021 (1441) *Oncocera semirubella*

This distinctive species was caught in Dave Gamble's Leicester Forest East garden on 25/07/2019 (photo right). It is a resident species in southern England, being mainly associated with chalk and limestone grassland. It is also a migrant species (i.e., a primary migrant from overseas) and vagrant species (i.e., dispersing from its known range in Britain). We may learn more about its status within VC55 in the coming years.

First record for VC55



62.032 (1465) *Nephopterix angustella*

There are only four previous records of this species that was recorded on 26/08/2019 from Tinwell by Adrian Russell & John Tinning and from Ron Follows' Barrowden garden on 27/08/2019.

63.048 (1408) *Palpita vitrealis*

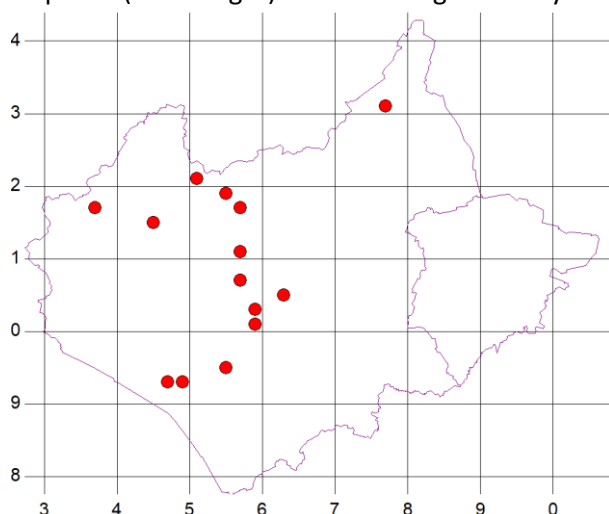
After a three-year absence from VC55, this migrant species made two appearances in 2019: from Adrian Russell's Evington garden on 08/08/2019 (photo right) and from Graham Calow's Sapcote garden on 25/08/2019. These represent the 10th and 11th records of this species from VC55.

**62.050 (1469) *Euzophera cinerosella***

This species was recorded for the sixth time when Pete Leonard caught one in his Harby garden on 27/06/2019.

63.054 (1409a) *Cydalima perspectalis*

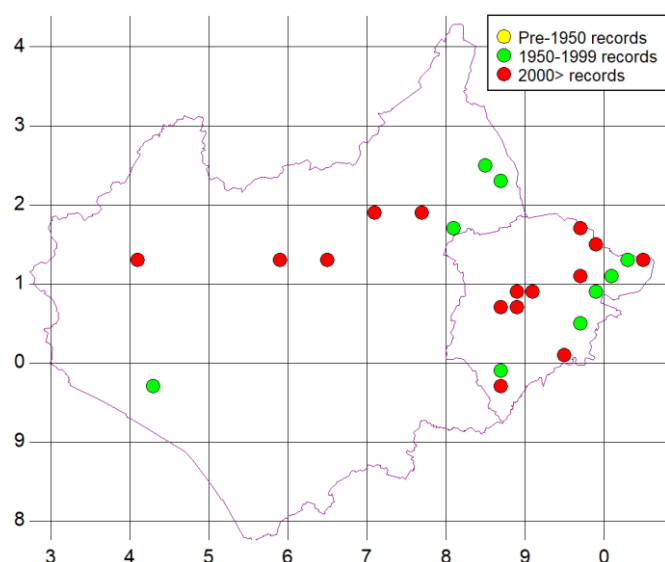
When this species first arrived in VC55 in 2017 there were 3 records. This was followed by a further 7 records in 2018. This progressive increase was maintained in 2019 with 19 records, though it is still somewhat localised e.g., 9 of these records were from Graham Calow's Sapcote garden and it has still yet to appear in most of the western half of VC55. The photo (below right) is of one caught in Gary Freestone's Leicester garden on 15/07/2019.

**63.100 (1314) *Catoptria margaritella***

One of the more distinctive of the grass moths, this species was recorded by Ted Gaten from his Thurlaston garden on 01/08/2019 (photo right). This is only the second record of this species from VC55, the previous record being from Adrian Russell's Evington garden on 15/07/2013.

**68.001 (1643) *Saturnia pavonia* Emperor Moth**

In 1982 Emperor Moth larvae were recorded on Meadowsweet in Clipsham Park Wood. On 20/04/19, armed with a pheromone lure, Adrian Russell attracted a male moth (photo below left), confirming this species' presence within the wood. A male was also recorded by Amelia Reddish at Barnsdale, Rutland Water on 25/05/2019. The distribution map for this infrequently recorded species is shown right.



69.005 (1973) *Acherontia Atropos* Death's-head Hawk-moth

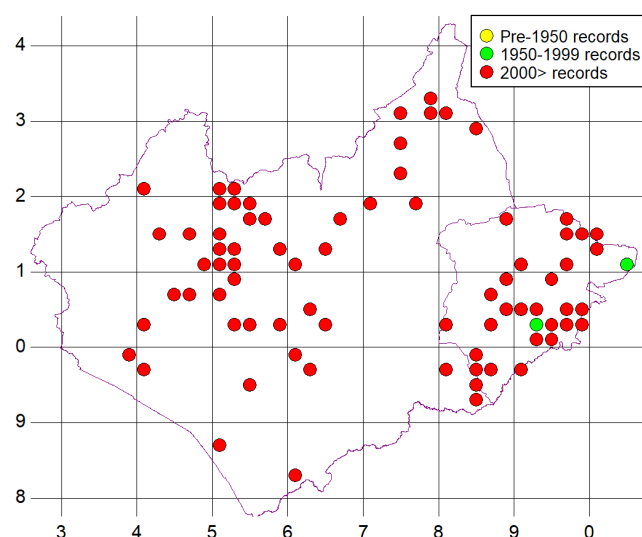
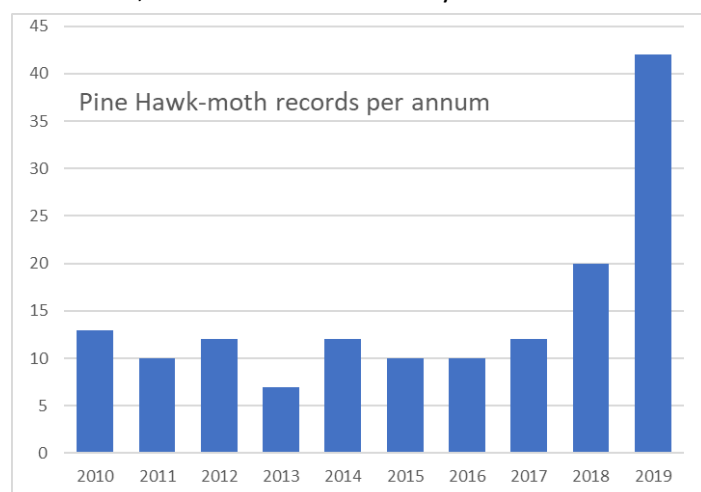
A larva of this species was recorded from Richard Webster's Ullesthorpe garden on 30/08/2019 (photo right). This is the first VC55 record since 2005, though that was found in a garden centre and may have been an importation.

The earliest known record of this species dates back to 1840 and there are quite a few records from the 1880's cited in the Leicester VCH. Post-VCH, there have now been 43 records of this species, a mix of larval and adult records, none of which were recorded by people who might be considered to be moth recorders. Considering the dramatic increase in interest in moths in recent years, it does seem that this migrant moth is now a far less frequent visitor to VC55.



69.007 (1978) *Sphinx pinastri* Pine Hawk-moth

The Pine Hawk-moth first arrived in VC in 1995, since when it has expanded its range across the whole of the county (distribution map below includes 1999 records). It has also increased in numbers year-on-year and in 2019 there were 42 records, more than twice as many records as in 2018.



69.014 (1987) *Hyles gallii* Bedstraw Hawk-moth

This migrant hawk-moth was recorded twice in 2019: from Ron Follows' Barrowden garden on 09/08/2019 and from Gary Freestone's Leicester garden on 17/08/2019 (photo right).

There are only five previous records from VC55 and this is the first time that two have been recorded in a single year.

- 1928 Near Leicester (specimen in Leics. collection)
- 1955 Great Bowden (Herbert Buckler)
- 1973 Leicester (larva found by H. P. Mills)
- 2003 Barrowden (Ron Follows)
- 2017 Wigston (Gavin Gamble)



70.016 (1713) *Idaea versata* Riband Wave

This is not a noteworthy species by any means, but a good example of a typical moth that will be caught by everyone moth trapping and can be used as an indicator of moth recording activity in 2019.

Total number of Riband Wave records in 2019: 1,054

Total number of Riband Wave moths recorded: 7,690

Maximum counts (single trap):

74 on 25th July in Adrian Russell's Evington garden (MV)

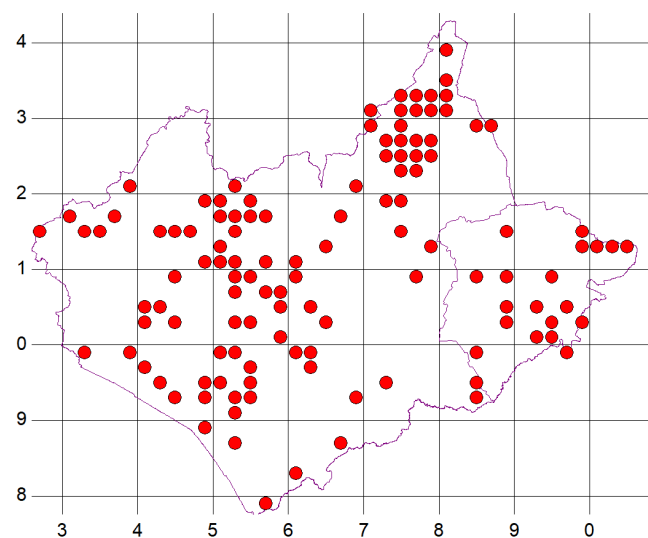
70 on 9th July in Mark Skevington's Whetstone garden (MV)

69 on 10th July in Andy Johnson's Dadlington garden (MV)

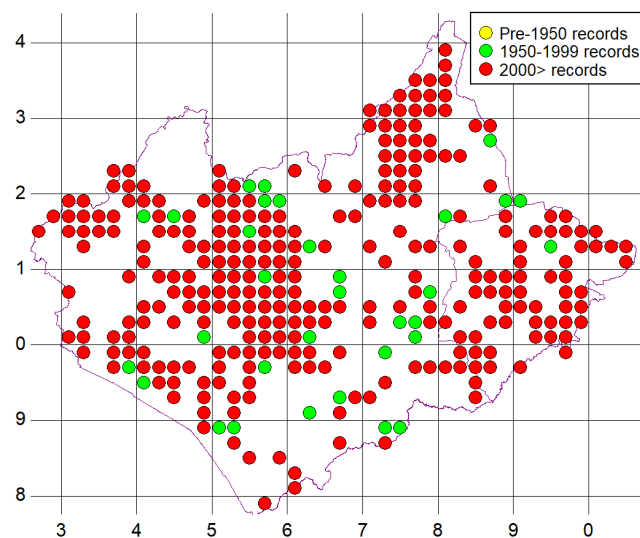
Recorded from 139 different locations and 117 different tetrads (see map below left), adding 35 new tetrad records and taking the total number of tetrad records to 312.



2019 records only



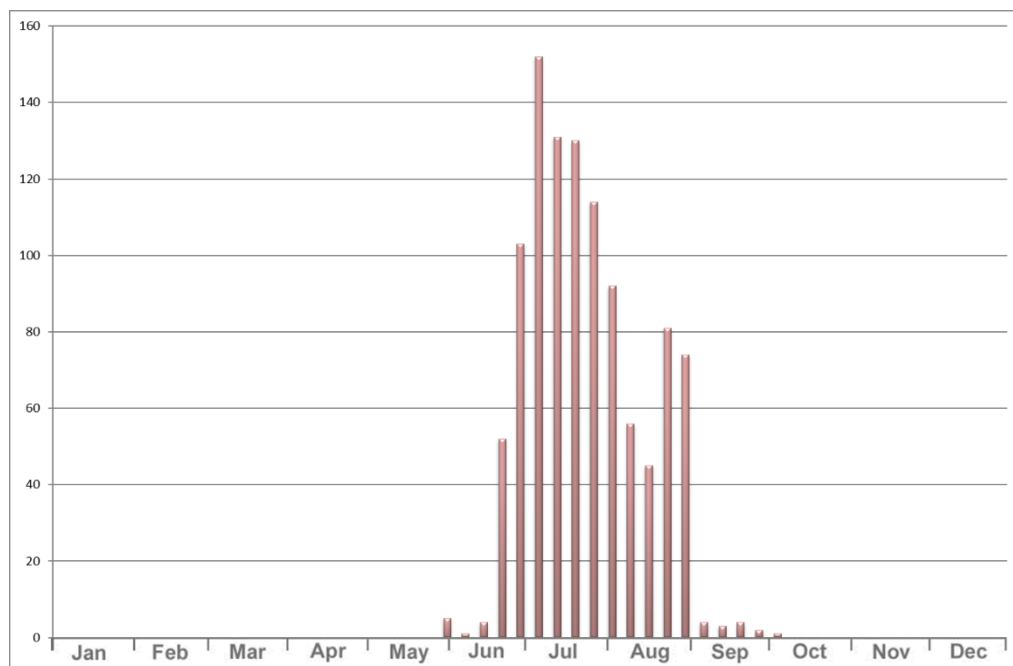
All years including 2019



The number of records for each week of the year are shown in the chart right. The number of records peaked in week 27 (first week of July).

The earliest records came on 31st May 2019 from both David & Mary Penton's Market Bosworth garden and from Richard & Kirsty Gamble's Broughton Astley garden.

The latest record was on 5th October, from Rob Cooke's Geeston garden.



Twenty-one recorders provided data on numbers of the two different forms of Riband wave (as shown in photo above). The results are very similar to those from 2018. We now have sufficient data, so no need to keep counting – thanks for your help with this.

Year	Total (sample size)	Unbanded (remutata)	Banded (typical)	% Banded
2018	3,534	2,817	716	20.3%
2019	3,940	3,127	809	20.5%
2018-2019	7,474	5,944	1,525	20.4%

70.123 (1790) *Triphosa dubitata* The Tissue

Unusually, there were no records of the Tissue at light in 2019. However, Ann Gleave recorded hibernating moths twice whilst undertaking bat surveys in railway tunnels in Morcott and Scraftoft.

70.128 (1784) *Melanthia procellata* Pretty Chalk Carpet

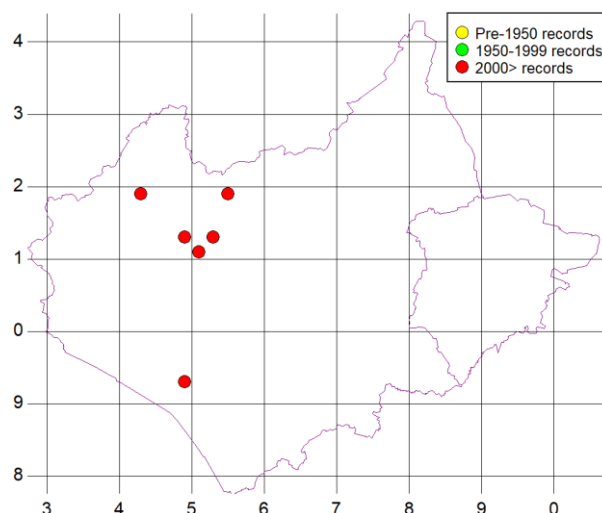
With only 12 previous records this, the least common of our Clematis-feeding moths, was recorded from Rob Cook's Geeston garden on 12/07/2019.

**70.149 (1815) *Eupithecia abietaria* Cloaked Pug**

Only the third VC55 record of this distinctive pug was recorded at Sandhills Lodge, Newtown Linford on 09/07/2019 by Hazel Graves, Dave Robinson & Fiona Proudlove (photo right).

70.154 (1822) *Eupithecia pygmaeata* Marsh Pug

Andy Dejardin recorded and photographed (below) a Marsh Pug in an Empingham meadow on 09/06/2019. The significance of this record from Rutland is self-evident from the pre-2019 distribution map below.

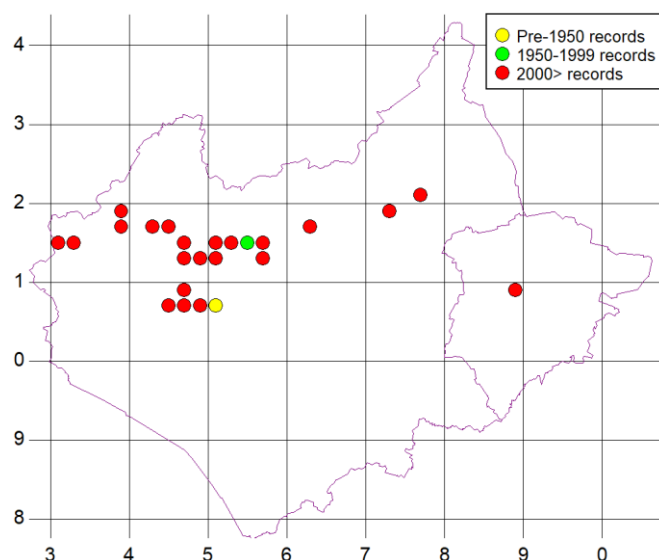


There are very few known colonies of this dayflying pug, but I suspect there are others waiting to be discovered. All that is needed is a sunny day in a flower-rich meadow where they might be found flying around their larval foodplant, mouse-ears (*Cerastium*). Their markings are fairly subtle, but distinctive enough to enable identification.

70.203 1661 *Archiearis parthenias* Orange Underwing

This is not an uncommon dayflying moth in the north-west of VC55 and is probably present wherever there are stands of birch. The pre-2019 distribution map is shown right and between 22/02/2019 and 01/04/2019 there were quite a few records within this known range: Cloud Wood (Sara Botterell), Kinchley Lane/Swithland Reservoir (Kane Charity and Mark Skevington), Hicks Lodge, Moira (Sean Wileman), Woodcote Wood South (Richard Jeffery).

But there were also records from outside of this species' known range (pre-2019 distribution map shown right), namely from Launde Park Wood on 28/03/2019 by Ron Follows and from Rutland (where the only previous record was from Burley Wood in 2002) where it was recorded from Ketton Quarry on 29/03/2019 by Dave Needham and Tony Clarke and from Pickworth Great Wood on 29/03/2019 by Paul Bennett and on 30/03/2019 by Alan Cann.



70.204 1662 Boudinotiana notha Light Orange Underwing

Unlike the Orange Underwing that is associated with Birch, the Light Orange Underwing's larval foodplant is Aspen. It was included in the 1907 VCH list, with the cited locations being Swithland and Buddon. The next record of this species was in 30/03/1946 when Herbert Buckler caught 8 in Burbage Wood. With the Aspen apparently no longer present in Burbage Wood and with no subsequent records, this species was thought to be extinct in VC55.

On 19/04/2019 Mark Skevington visited Pickworth Great Wood in a failed attempt to pheromone lure Emperor Moths. But in the course of the visit, he photographed (below right) and netted an orange underwing. As there is both Birch and Aspen in the wood, he checked the hindwings of the (female) moth and noting that the dark outer marginal band on the hindwing was unbroken (photo below right), concluded that it was a Light Orange Underwing! He saw at least another 10 in the course of his visit, though no others were netted.



Adrian Russell made follow-up visits on 21/04/2019 and 22/04/2019 and recorded five and netted two as voucher specimens (below: top row uppersides, bottom row undersides) to double-check the identification.



From the bipectinate (feathery) antennae, the moth on the left is clearly a (worn) male Light Orange Underwing. The moth on the right is a female Light Orange Underwing, based on the unbroken (though indented) outer band on the hindwing underside and from the narrow antemedian band on the forewing upperside.

Most texts state that Orange Underwings fly slightly earlier in the year than Light Orange Underwings and this is borne out by the phenology charts in the new national atlas (Randle et. al.,2019) which show the peak flight period for Orange Underwing to be the last two weeks in March whereas for the Light Orange Underwing the peak is in the last week of March and the first week of April. This was also evident from the observations of recorders in Pickworth Great Wood in 2019. However, the date of observation alone cannot be used as a means of identification due to the overlap in the flight periods of the two species.

For many years conventional wisdom has held “orange underwings” flying around birches (or Rowan) could only be Orange Underwings but care now needs to be taken on sites where both Birch (or Rowan) and Aspen are present. The issue is further complicated by the fact that in one Hertfordshire wood, both species were found to be flying around birches at the same time (Hill, Jenner & Plant, 2011)!

This should not deter the recording of these two species especially as this is one of the most rewarding of moth recording activities on sunny days in March and April. Care must be taken though on sites where both birch and Aspen are present and where this is the case specimens need to be netted and examined closely. If the moth has bipectinate (feathery) antennae it will be a male Light Orange Underwing. If not, it could be either species and the wing markings will need to be carefully checked and either photographed or retained for closer examination.

70.215 (1897) *Macaria wauaria* V-Moth

Whilst there are 218 records of this species in the VC55 database, it is in serious decline and for the last 20 years it has only been recorded from a single locality in Rutland. It was last recorded from that site in 2015, so it's reassuring to know that Malcolm Hillier recorded them from there twice in 2019 with 18 being recorded at light on 16/07/2019.

70.240 1920 *Odontopera bidentata* Scalloped Hazel

There were 160 records (226 moths) of this species in 2019. Recorders had been asked to note the numbers of the melanic f.nigra (photo right) and the results are shown below:

Year	Total (sample size)	Typical	f. nigra	% f. nigra
2018	66	64	2	3.0%
2019	56	54	2	3.6%
2018-2019	122	118	4	3.3%

Although the percentages are similar, in view of the relatively small sample size, it might be useful it might be worth continuing to keep a note of the numbers of this form recorded.

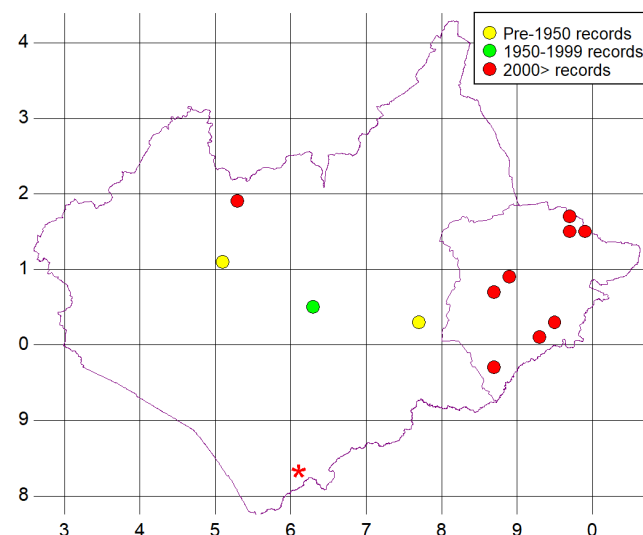


70.246 (1925) *Apocheima hispidaria* Small Brindled Beauty

There were only two records of this species in 2019. The most significant one was from Derek Spicer's South Kilworth garden on 16/02/2019 (photo below), which is the first record from the extreme south of the county (shown as * on the distribution map right).



The other record was from Rutland Water reedbed on 04/03/2019, recorded by Ron Follows.



70.252 (1931) *Biston betularia* Peppered Moth

This is another species where recorders were asked to note the numbers of the different forms and again the proportion of the melanic f. *carbonaria* (photo right) are similar to the results for 2018.

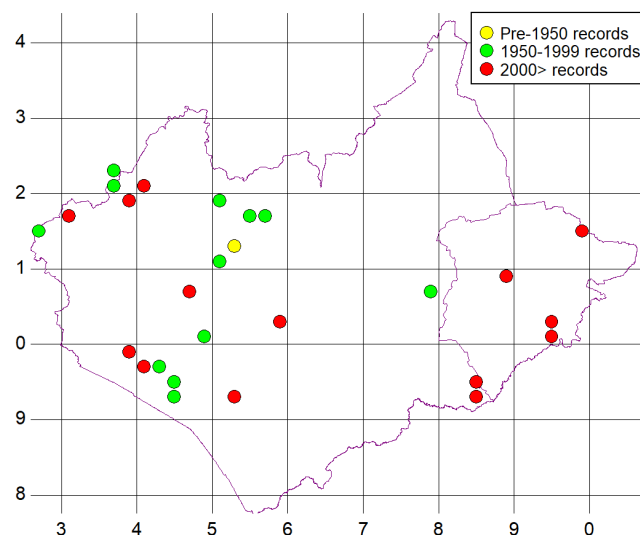
Year	Total (sample size)	Typical	%	Intermediate	%	f. <i>carbonaria</i>	%
2018	197	186	94.4%	5	2.5%	6	3.0%
2019	280	270	96.4%	1	0.4%	9	3.2%
2018-2019	477	456	95.6%	6	1.3%	15	3.1%



70.300 (1667) *Comibaena bajularia* Blotched Emerald

Green and yellow dots on these distribution maps are never a good sign, especially as so much more moth recording has taken place from 2000 onwards. The Blotched Emerald is an uncommon moth and is rarely encountered outside of mature oak woodland.

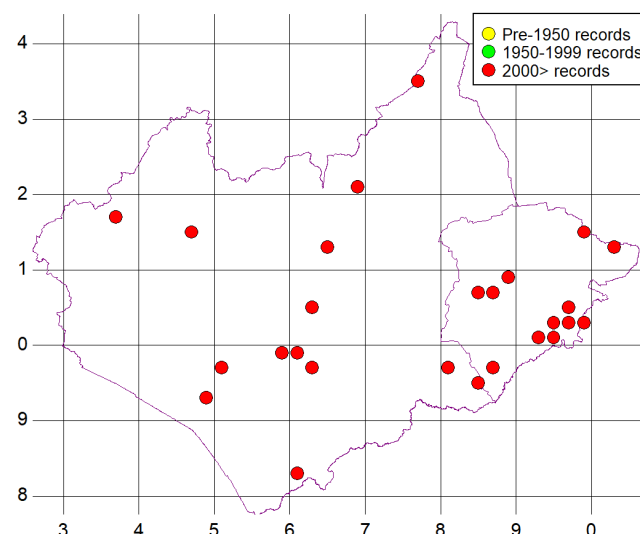
Three were recorded from Tunnely Wood, Exton (encompassing two different tetrads) by Adrian Russell on 22/06/2019, which is a new site for this species. Graham Finch and Sean Wileman recorded a total of 32 from Grange Wood, Netherseal on 29/06/2019. This is first time this species has been recorded in double figures from any site in VC55. It was recorded from the site in 1991 (the most westerly green dot on the map right, which will now become a red dot), so it's good to know that it's still present and in such good numbers.



72.012 (2029) *Euproctis chrysorrhoea* Brown-tail

This species first arrived in VC55 in 2005, but it was not until 2011 that it was recorded outside of Rutland. Since then, it has slowly been noted in new localities and there were 13 records in 2019.

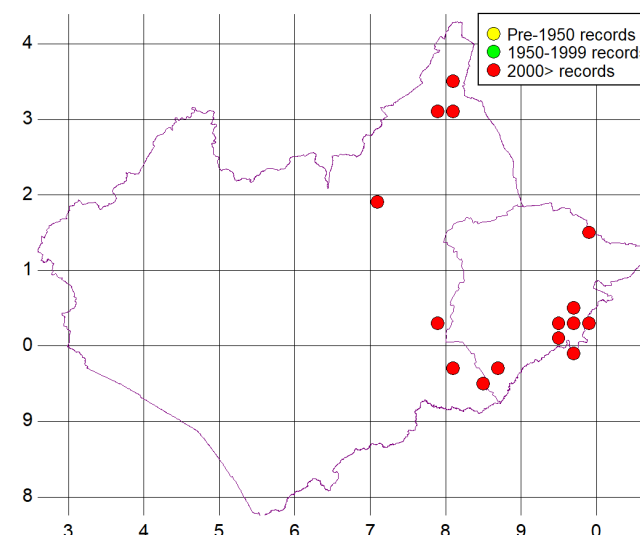
On 21/04/2019 Mark Skevington recorded a larval web containing approximately 30 larvae at Huncote Embankment, the first larval record from VC5 and confirmation that this species is now resident in the county. The distribution map (right) includes all records up until the end of 2019.



72.035 2037 *Miltochrista miniate* Rosy Footman

Although not common, since 1999 the Rosy Footman has been regularly recorded from Rutland and just over the border into Rutland. It was also recorded once from Asfordby in 2007, well outside of its known range at that time.

There were a total of 16 records in 2019, mainly from Rutland. But Pete Leonard recorded it from three different locations in the Vale of Belvoir, all on 16/07/2019: Barkestone Wood, Terrace Hills and Belvoir Fruit Farms (records included on map right). The Vale of Belvoir always used to be a bit of an unknown as far as moths were concerned, but the moth recording that Pete has so enthusiastically been carrying out there recently not only provides us with valuable information on the moths of that region, but also aids our understanding of the distribution and status of species across VC55 as a whole.



72.041 (2051) Lithosia quadra Four-spotted Footman

On 25/08/2019 Anthony Plummer caught a Four-spotted Footman (right) in his Quorn garden moth trap. This is only the third post-VCH record of this rare migrant and the first ever record of a female from VC55. The other post-VCH records were from the Peter Gamble's Quorn garden on 16/07/1964 and from Will Kirby's Horninghold garden on 03/10/2013.

**72.073 (2408) Eublemma parva Small Marbled**

Another rare migrant, this species was recorded from Gary Freestone's Leicester garden on 05/07/2019 and from Andy Mackay's Evington garden on 17/07/2019. These are only three previous records of this species from VC55.

72.074 (2407a) Eublemma purpurina Beautiful Marbled

This stunning migrant must be on many moth recorders' wish lists and this year the Rutland Water Lyndon Reserve moth recorders led by Paul Bennett and Vic Arnold were fortunate to record this species from the reserve on 29/07/2019. This is the first record of this species from VC55.

First record for VC55



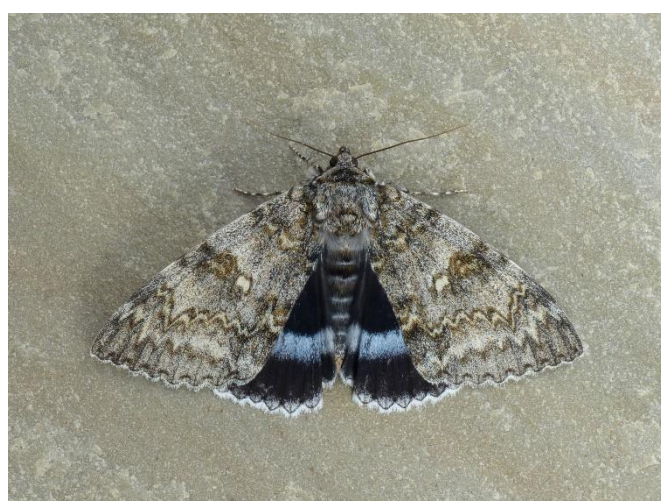
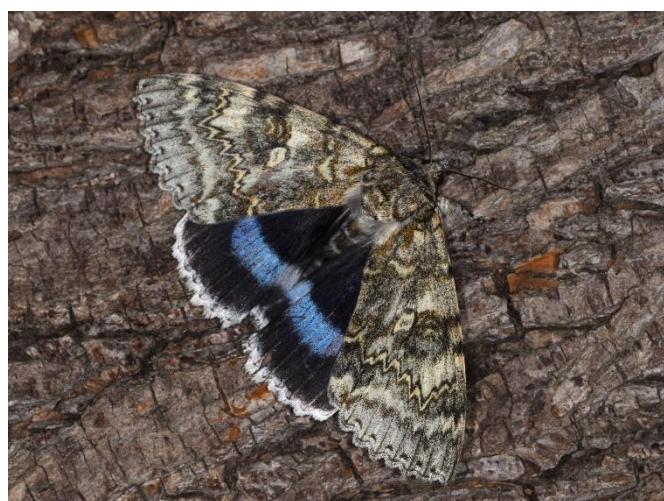
Two months later, another was caught in Ann Quaife's Harby garden on 24/09/2019 and photographed by Pete Leonard (photo right).

72.076 (2451) Catocala fraxini Clifden Nonpareil

In terms of moth recorder's wish-lists this species must surely be at the top of many. It is on the VC55 species list on the basis of a 1902 specimen in the Leicestershire reference collection and an unconfirmed record in 2005.

But that all changed in 2019, with an amazing total of eight recorded in the year (seven of which were photographed):

25/08/2019	Clipsham Quarry	Malcolm Hillier & Mick Beeson	1 at MV light (photo below left)
27/08/2019	North Luffenham garden	Mags Grindle	1 attracted indoors by light & identified by Tim Collins
04/09/2019	Alma Park, Claybrooke Parva	Kirsty Taylor	1 found at rest on wall
07/09/2019	Rutland Water NR, Reed Bed	Ron Follows	1 at MV light
10/09/2019	Oakham car park	Nicholas Baxter	1 found dead in car park
19/09/2019	Newton Harcourt garden	David Scott	1 at MV light
20/09/2019	Woodhouse Eaves garden	Dave Foley	1 at MV light (photo below right)
30/09/2019	High Street West, Uppingham	Richard Boston	1 flew inside building



All live caught moths were released in the hope that it might aid the establishment of this species in VC55. It will be interesting to see if there are further records in 2020 (I think some of you already know the answer to this!)

72.081 (2455) *Catocala sponsa***Dark Crimson Underwing****First record for VC55**

On 26/08/2019, the day after the first Clifden Nonpareil, another rare Catocalid made an appearance, when two Dark Crimson Underwings were recorded on the same night, some 40 miles apart, in Eric Leese's Sapcote garden (photo below left) and in a light trap operated in Barkestone Wood by Pete Leonard (photo below right). This is a first for VC55, though I suspect it will be impossible to determine which moth recorder can rightly claim that honour!

**72.082 (2454) *Catocala promissa*****Light Crimson Underwing****First record for VC55**

Rounding-off an unbelievable year for Catocalids, was a Light Crimson Underwing recorded for the first time in VC55 from Andy Mackay's Evington garden on 22/08/2019 (photo right).

It seems that gone are the days that we could safely assume that a large grey moth with red hindwings would be a Red Underwing. The recorders involved in these crimson underwings are to be congratulated for the care that they obviously took in identification, as well as for retaining the moths so as to enable their identities to be confirmed and the moths photographed; nothing is worse that a good record that has to be classed as being unconfirmed through a lack of confirmation.

**73.012 (2434) *Diachrysia chrysis*****Burnished Brass**

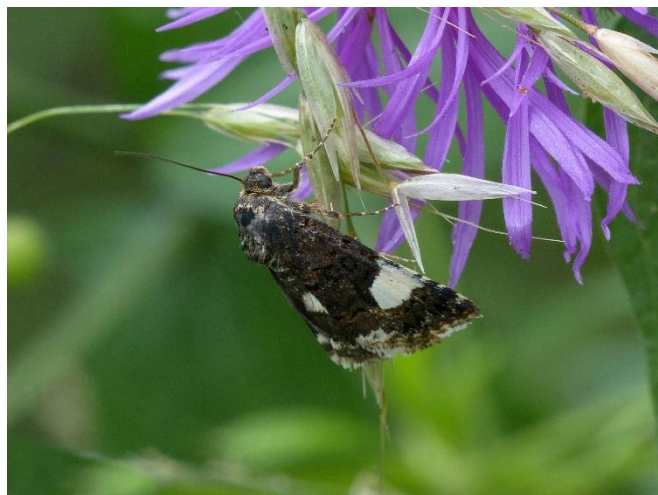
This is another species that recorders had been asked to make a note of the number of the two forms: *f. aurea* with the cross bands unjoined (below left) and *f. tutti* (a.k.a *juncta*) with the two bands joined (below right). Again, the results from 2019 are fairly similar to those from 2018.

	Total				
Year	(sample size)	<i>f. aurea</i>	%	<i>f. tutti/juncta</i>	%
2018	187	79	42.2%	108	57.8%
2019	170	68	40.0%	102	60.0%
2018-2019	357	147	41.2%	210	58.8%



73.031 (2465) *Tyta luctuosa* The Four-spotted

The new national atlas gives the status of this species as being “Near Threatened” and when one looks at the map for that species one can see why. But one can also appreciate the significance VC55 for this species – perhaps our most special macro-moth? The only post-2008 record of this species had been a daytime record from Essendine railway banks on 04/06/2016. On 12/07/2019 Adrian Russell ran an MV light on a spot overlooking this site and was very pleased to record 7 individuals. This provided confirmation that the species was resident on this site and bolstered Adrian’s previous conclusion that all records of this species from VC55, and all immediately adjacent colonies just outside of VC55, were on or within a short distance of active and disused railway lines.

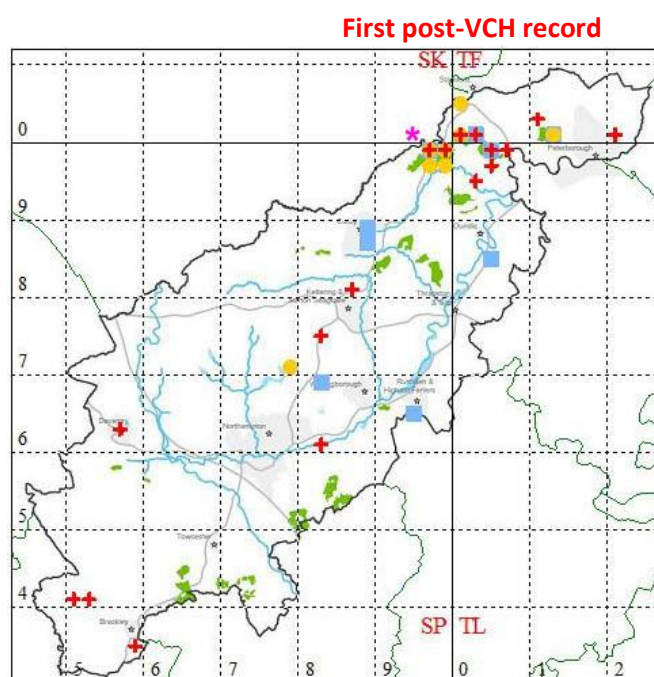


In a separate exercise Adrian was doing some roadside light trapping in tetrads with few moth records. One such location was in Ryhall. What was completely unexpected was the 22 Four-spotted moths that came to the MV light operated on that roadside verge on 16/07/2019. Keen to see if this species was also present at a similar roadside location near Pickworth, he ran an MV light there on the following night and recorded a further 15. Keith Tailby also recorded one from that location on 21/07/2019. These are unprecedented numbers for this species in VC55 and, whilst these two sites are less than 2 miles from a railway line, it indicates that roadside verges may be an important and under-appreciated habitat for this species.

73.032 (2425) *Colocasia coryli* Nut-tree Tussock

This species was listed in the VCH (“Buddon Wood, larvae also”) but there had been no record since then, until Ron Follows caught one in his Barrowden garden trap on 17/04/2019.

The map right (from Northants Moth Group website) shows the distribution of this species in VC32 (Northants) and records since 2000 are shown with a + and the location of Ron’s garden is shown with a *. Hence, this record could be considered to be long overdue, but what will be more interesting whether or not this species becomes established in VC55.



73.033 (2020) *Diloba caeruleocephala* Figure of Eight

There was only one record of this declining and now rare species in 2019, recorded by Ron Follows at Luffenham Heath golf course on 12/09/2019.

73.042 (2286) *Acronicta menyanthidis* Light Knot Grass

This species was recorded for the first time from VC55 when one was caught in Dave Pearce’s Long Clawson garden on 23/05/2019, followed by another taken by Pete Leonard in a garden in Bottesford two days later on 25/05/2019.

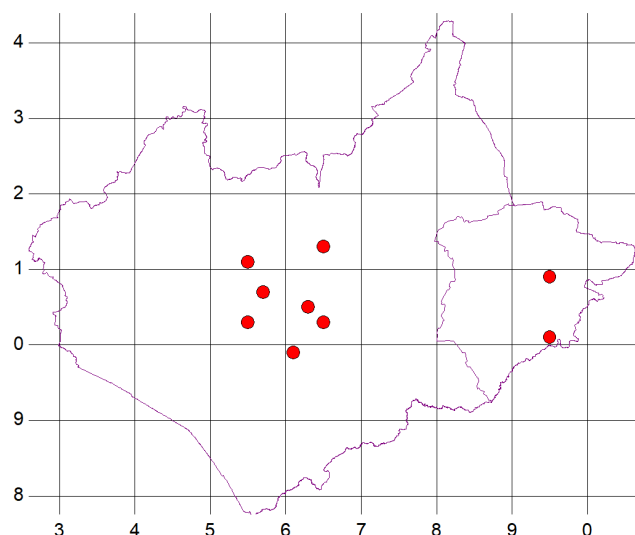
This appears to be part of a local migration (Ellis, 2001) with a record from Lincolnshire and one from Nottinghamshire on 24/05/2019 and one from Buckinghamshire on 25/05/2019. All of these records are well outside of its current national range, this being a species of acid moorlands and heaths north of a line from the Severn to the Humber. Southwards movements of a northern species are quite unusual.



73.059 (2223) *Calophasia lunula* Toadflax Brocade

This species first arrived in VC55 in 2018, with three moths being recorded from gardens in Braunstone, Leicester and Wigston and with larvae being recorded from Andrew Dejardin's Empingham garden. 2019 records are detailed below, together with a distribution map showing 2018 & 2019 records:

23/05/2019	Empingham garden	Andrew Dejardin	1 adult at light
24/05/2019	Evington garden	Andy Mackay	1 adult at light
28/05/2019	Empingham shopfront	Andrew Dejardin	1 adult at light
26/07/2019	Evington garden	Adrian Russell	1 adult at light (photograph below)
03/08/2019	Queniborough garden	John Tinning	1 adult at light
02/09/2019	Barrowden garden	Ron Follows	2 larvae
05/09/2019	Barrowden garden	Ron Follows	4 larvae
08/09/2019	Cropston garden	Peter Smith	2 larvae



73.076 (2400) *Helicoverpa armigera* Scarce Bordered Straw

There were four records of this uncommon migrant in 2019: from Andy Johnson's Dadlington garden on 03/07/2019, Sean Wileman's Ashby de la Zouch garden on 12/09/2019, from a Bottesford garden by Pete Leonard on 20/09/2019 and John Tinning's Queniborough garden on 25/09/2019.

73.082 (2292) *Cryphia algae* Tree-lichen Beauty

This species first arrived in VC55 in 2018 when one was recorded in Michael Lester's Littlethorpe garden. It is a species that is expanding its range nationally, so it was no surprise that there were further records in 2019:

26/07/2019	Queniborough garden	John Tinning	1 at light (photo left)
26/07/2019	Geeston garden	Rob Cooke	1 at light
29/07/2019	Whetstone garden	Mark Skevington	1 at light (photo below right)
03/08/2019	Queniborough garden	John Tinning	1 at light
03/08/2019	Luffenham Heath Golf Course	Ron Follows	3 at light (in 6 traps)
03/08/2019	Geeston garden	Rob Cooke	1 at light
13/08/2019	Braunstone garden	Len Holton	1 at light
25/08/2019	Geeston garden	Rob Cooke	1 at light
24/09/2019	Leicester Forest East garden	Dave Gamble	1 at light



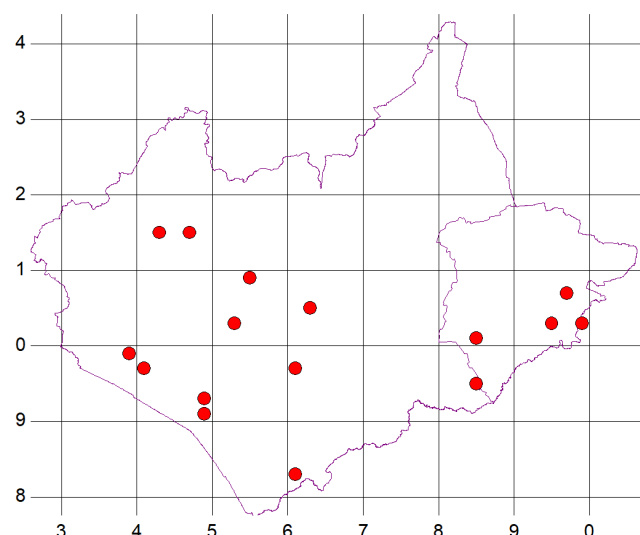
As the photographs show, this species can be quite variable, though it remains unmistakable.

73.087 (2385) *Spodoptera exigua* Small Mottled Willow

There were two records of this uncommon migrant, from Watermead Country Park North on 17/06/2019 (Mick Braker) and from Eyebrook Reservoir on 11/07/2019 (Ron Follows)

73.197 (2260) *Conistra rubiginea* Dotted Chestnut

There were a further six records of this species that first arrived in VC55 in 2012 and the distribution map (right) now shows that it has been recorded in most areas of the county apart from the north-east. Most of the 2019 records came in the last week of February and March, perhaps before many garden moth recorders have emerged from hibernation, so its presence here may be stronger than the records indicate.

**73.209 (2241) *Xylota vetusta* Red Sword-grass**

After a ten-year absence from VC55, this species was recorded by Derek Spicer on 20/03/19 (photo right), only the 4th post-2000 record. This is another species that flies early and late in the year, but the new national atlas confirms that this is a rare species in the Midlands.

**73.243 (2183) *Orthosia miniosa* Blossom Underwing**

There were eight records of this species in 2019, six of which were from Rutland, where it now appears to be established. Elsewhere, the situation is more patchy, with the other two 2019 records coming from David & Mary Penton's Market Bosworth garden on 22/03/2019 and from Willesley on 07/04/2019 (Sean Wileman).

73.356 (2135) *Xestia agathina* Heath Rustic

The new national atlas shows a discontinuous distribution in Britain, with this species being virtually absent from much of central England. Being a species of heather moorland and heathland, this is perhaps not that surprising. It also states that there has been a major decline in abundance at monitored sites since 1970.

The situation in VC55 paints a somewhat different picture. It is listed in the VCH on the basis of a potentially dubious record from Gumley and a record from Stoke Golding in 1955. But in 2001 it was discovered amongst the heather at Charnwood Lodge (up until 2004) and from other sites in the north-west between 2002 and 2013. Then in 2014 it was discovered in the heather-rich area of the former Newfields colliery site, from where it has often been recorded in good numbers and where Sean Wileman caught a total of 29 in 3 LED traps on 24/08/2019.

But this species also appears to be a bit of a wanderer with a number of records from VC55 well away from its favoured habitats: from Prior's Coppice in 2002, from Ab Kettleby in 2018 and from John Tinning's Queniborough garden on 13/09/2019 (photo right).

**Summary**

2019 was an exceptional year for the number of noteworthy and iconic species recorded from VC55 for the first time or for the first time in many years: **15 species new to VC55 in 2019 (11 micromoths and 4 macromoths)**

The year will also be remembered for the fact that the history of the Catocalini in VC55 was completely re-written within the space of five days in August!