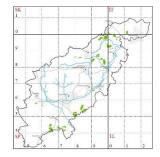
VC32/Northamptonshire Moths – A Brief Summary of New Species & Noteworthy Records from 2021

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Northamptonshire/VC32 Moth Group website: http://www.northamptonshiremoths.org.uk/home.htm



1. Introduction

This is a brief review of species newly recorded in VC32 (Northamptonshire and The Soke of Peterborough), along with interesting and noteworthy moths recorded during the 2021 season. If you have any queries or observations about the article, please do drop me a line.

2021 was another year which was plagued by difficulties caused by varying degrees of Covid restrictions. This certainly put paid to any organised field trip activity, aside from some limited survey sessions on the Bulwick Estate just north of Corby. Cou pled with other issues affecting individual recorders' abilities to get out in the field, this may have led to a slight drop in the overall number of species recorded during the year, but there remains a reasonable number of new additions to the county fauna.

I always request that anyone who is recording moths to get in touch with me directly, regardless of their chosen method of record-keeping/submission, as it certainly helps to identify issues with identification etc, especially with regards to those species which need to be aggregated unless dissected.

I would also note here that those who participate in the Garden Moth Scheme, that your moth records are not automatically forwarded on to the County Recorders. If you have not done so, and wish your moth records to be incorporated in the local database, do please drop me a line.

Firstly, as has become customary, some fun facts and figures:

	2021	2020	2019	2018
No. records received	46,953	45,765	44,098	51,400
No. species recorded (exc. aggregates)	1,037	1,053	1,050	1,030
No. individuals recorded	168,600	150,000	195,200	189,000
No. species new to the county	10	12	11	13

This brings the grand total of records in the VC32 database to approx. 695,830.

The Top Ten species, based on number of records received, not number of individuals (2020 position in brackets) seems to indicate a fairly stable top-ten over the past couple of years:

Pos.	ABH	Taxon	Vernacular	Records
1 (1)	73.342	Noctua pronuba	Large Yellow Underwing	923
2 (7)	70.226	Opisthograptis luteolata	Brimstone Moth	756
3 (6)	73.359	Xestia c-nigrum	Setaceous Hebrew Character	753
4 (5)	70.258	Peribatodes rhomboidaria	Willow Beauty	682
5 (3)	73.291	Mythimna pallens	Common Wainscot	672
6 (2)	73.317	Agrotis exclamationis	Heart and Dart	630
7 (9)	73.162	Apamea monoglypha	Dark Arches	536
8 (-)	73.329	Ochropleura plecta	Flame Shoulder	516
9 (10)	70.016	Idaea aversata	Riband Wave	514
10 (-)	73.099	Hoplodrina ambigua	Vine's Rustic	492

Welcome to New Recorders

Each year brings new people into the world of moth recording, and 2021 was no exception. Some of the recipients of this report may therefore be seeing it for the first time, and I welcome you to the VC32 moth community. For those receiving this report for the first time I hope this report is of use, with some nuggets of interest for everyone. For those who have not met me or had email dialogue, do feel free to drop me a line if you have issues with identifications etc. I am often away from my desk for short periods of time during the main moth season, but always endeavour to reply to queries as soon as I am able.

Butterfly Conservation Projects

In the Rockingham Forest area, the Back from the Brink project, over-seen by Susannah O'Riordan, ran through to mid-2021, following a funding extension. Sadly, the moth group was unable to provide a great deal of support in these latter stages due to Covid restrictions, although a limited amount of survey work was conducted on the Bulwick Estate, partly under this project banner, but also as an ongoing re-wilding project on the estate. Further survey work is proposed for 2022, and Susannah remains "local", looking after various butterfly species, including of course, the Chequered Skipper re-introduction project.

The Great Ectropis Saga

The status of The Engrailed and The Small Engrailed has been the subject of feverish discussion over many, many years, both having suffered from numerous changes of scientific name along the way – and most recently Small Engrailed even having no scientific name at all (ignominiously referred to in recording packages simply as *Ectropis sp.*). The UK has now fallen in-line with our European allies and thus Small Engrailed has been removed as a valid species from the current UK List. Note that some of the more recent field guides still list Small Engrailed, as these were published before the above decision was made, so please be aware of this most recent change.

Caloptilia News

Due to the confusion over several *Caloptilia* species, and the possibility that other *Caloptilia* species exist in the UK "cryptically", having yet to be formally recorded and identified (such as *C. jurataea* which some authors suggest might already have found its way to these shores, or will do so in the next few years). *C. hemidactyla* and *C. honoratella* are both recorded in the UK (although neither have yet to be confirmed in VC32, but are now recorded in neighbouring vice counties). Hence, in line with other counties, the following measures are adopted:

- Any adults of Caloptilia species which exhibit a yellow costal mark should now be retained for dissection to confirm identity. This includes *C. alchimiella* and *C. robustella* (also, *C. hemidactyla*, *C. azaleella*, *C. fidella*, *C. honoratella* although not yet recorded in VC32), but also includes forms of *C. ellongella*, *C. rufipennella* & *C. betulicola*.
- Larval leaf-rolls/leaf-cones from Field Maple, Norway Maple and Sycamore must now also be retained and reared through to adult to confirm species identity (which may involve dissection, as described above).

The Allure of Lures

Until quite recently, pheromone lures deployed by Lepidopterists in the UK were used principally to record some of the day-flying species, with a particular focus on the Clearwings. These species can be injurious to crops, and thus many lures have been derived for the purpose of crop protection. However, these lures have been found, in some cases, to attract "non-target species" and as such a whole new branch of moth hunting appears to have been born.

The increasing use of Funnel traps, such as the one pictured below, has also enabled users to leave pheromone lures in -situ for a period of time and thus increased the opportunity for moths to reach the attractant, be retained in the clear plastic bowl and thus be recorded. Results can be, simply put, astounding. A good, local example, is of 51 *Grapholita lobarzewski* being recorded in a single funnel trap in Northampton (Mundy, 2019).



A typical funnel trap – the lure is placed in the small, cylindrical cage seen just under the lid

As a result of "non-target" lure deployment, several species are being recorded in unprecedented numbers, many of which have previously been regarded as rare, and in some cases, absent from the area. A few locally significant examples are discussed in the sections below.

A few good examples to look for locally using commercially available lures, which would greatly increase our understanding of our moth fauna include:

Species	Lure (intended target in parentheses)
Cydia cosmophorana	COS (Goat Moth lure – Itd evidence to suggest attraction, but maybe worth a go)
Dewick's Plusia Macdunnoughia confusa	Ni (Ni Moth lure)
Epinotia pygmaeana	EMP (Emperor Moth)
Nemapogon ruricolella	VES (Yellow-legged Clearwing)
Pammene suspectana	FUN (Grapholita funebrana) MOL (G. molesta)
Phyllonorycter hostis	NIG (Cydia nigricana) (NB: this lure attracts <i>P. blancardella</i> too, so moths will need to be retained for ID)
Prochoreutis myllerana	SAL (Sallow Clearwing)
Psychoides verhuella and P. filicivora	SAL (Sallow Clearwing) TIP (Current Clearwing)
Sallow Clearwing Synanthedon flaviventris	SAL (OK, I admit that this is designed for the moth, but it is best recorded in even years and was first recorded in VC32 in 2020)
Triaxomasia caprimulgella	LUN (Lunar Hornet)
Triaxomera fulvimitrella	CUL (Large Red-belted Clearwing)
Tuta absoluta	ABS (another specific lure, actually designed for <i>T. absoluta</i> !)

(NB: the above species may require dissection to confirm ID, so do please check your references when considering the catch)

Perhaps a couple of notes of caution is required here:

- As with any unnatural attractant (be that a light trap, sugar solution, Gradwell Trap, etc), funnel traps should be sited carefully so as to limit the interference and harm to the moths being attracted (e.g., not left unattended in direct sunlight), and most importantly of all regularly checked and emptied.
- Also, when using the funnel traps, if different lures are being used in succession in the same trap, it is <u>imperative</u> that the cages into which the lures are placed are thoroughly cleaned between lures. There is some evidence that lure residues can remain viable on the plastic for days after the last use, and thus can contaminate different lures being used, or can result in moths being attracted to that residue and being recorded as attracted to the current lure! In some cases, spare lure cages are available to purchase, and thus might be kept for use with one specific lure, if the pocket allows such luxury.

Suppliers of pheromone lures and traps:

Anglian Lepidoptera Supplies: https://www.angleps.com/pheromones.php

Oecos: http://www.oecos.co.uk/pheromone/ Pherobank: https://www.pherobank.com/

A couple of pheromone resources:

https://www.angleps.com/Pheromone lures non target species caught.pdf

FaceBook group: Moth Pheromone Trap Records

BOLO (Be on the look-out for...)

Those that know me well will know that I have been waxing lyrical for a couple of years about the (hoped-for) imminent appearance of moths expanding their range, such as Black-spotted Chestnut. Suffice it to say, this has not yet come to pass! So, I thought I would list a small handful of species which might be appearing (or re-appearing) in the county soon.

21.002 Lyonetia prunifoliella

This species is seemingly making a come-back after it was assumed to be extinct in the UK around the turn of the Twentieth Century. There is a single VC32 record of an adult from 1895, listed in Meryick's Handbook of British Lepidoptera, and Wallis: Lepidoptera of Northamptonshire.

In recent years the species has been recorded in several southern counties, but include one in N. Bucks.

Given the diminutive size of the adult moth (which may be encountered between August and the following May), and similarity to its congener species, this might be better searched for as a mine on Blackthorn and Apple, possibly other rosaceous trees/shrubs, during July and early August.



Photo credit: Willem Ellis, ukflymines.co.uk

63.119 Musotima nitidalis

This adventive Antipodean species was first noted in the UK in 2009, and has since spread from Dorset, throughout many southern counties in England.

The larvae in the UK feed on various ferns, including Bracken, *Pteridium aquilinum*, Hard Fern, *Blechnum spicant*, and Broad Buckler Fern, *Dryopteris dilatata* in June, and again in the autumn through to December.

Adults are easily disturbed by day and come readily to light trap at and shortly after dusk.



Photo credit: Keith Tailby

73.196 Conistra rubiginosa Black-spotted Chestnut

Another recent arrival to the UK, first noted around the Dartford/Gravesend area in 2011. The moth had spread quite rapidly through Northern Europe, and continues to expand its range in the UK, with repeat records in Bedfordshire and Huntingdonshire suggesting that it is now a breeding species there.

The adult comes to light, emerging in October, and flying on mild nights through to early April.

Larvae are said to feed on a range of deciduous trees and low-growing plants and thus could turn-up anywhere! So, this is an excellent excuse to run garden light traps throughout the winter months!



Photo credit: Keith Tailby

The following sections of this report follow a now well-worn pattern for this annual article. Nomenclature and numbering adhere to the currently accepted UK Moth Checklist published by Agassiz, Beaven & Heckford (ABH) in 2013, with updates and additions as appropriate. I also include, where available for general reference and the current national status of each species appears in [square brackets], although it might be noted that some of these now feel a little dated and do not reflect the rapid change to the distribution of some species (NB: UK status has not been reviewed/published for a few years, and some species below which are marked as Migrant or Rare Migrant are now believed to be resident in the country. These have been marked with an *).

Species New to VC32

Ten species were noted as being new to VC32 during 2021:

4.083 Ectoedemia hannoverella (Glitz, 1872) pRDB3

Recorded as new to VC32 on 27.x.2021, with two records at two different locations of the Dogsthorpe Star Pit Reserve site, TF20, Peterborough (Newman). Mines were recorded in fallen leaves of Black/hybrid Poplar.

14.011 Bucculatrix ulmifoliae Hering, 1931 **Adventive**

Several mines were recorded on Elm in Grafton Park Wood, SP98, on 13.x.2021 (Hammond). Initially recorded only in Surrey, this species has recently been noted in some of the neighbouring counties and is thus worth looking for on Elm, as the moth is apparently expanding its range within the UK.

15.047 Phyllonorycter hostis Triberti, 2007 Local

This species has recently been recorded in nearby counties. The first confirmed record was of two individuals attracted to the NIG pheromone lure at Old Sulehay, TL09, on 30.v.2021 (Hammond). Both moths were dissected to confirm ID, as these cannot be separated from the apparently much more widespread P. blancardella when caught as adults. A further three males were attracted to the NIG lure at Cogenhoe, SP86, two on 02.vii.2021 and another on 09.vii.2021 (both Seaman), all of which were also subject to dissection to confirm. I strongly suspect that this is another under-recorded species which will be seen to be more widespread with the use of lures. It is also worth looking for the mines on Apple trees outside of the two flight periods for the adult.

15.093 Phyllocnistis xenia Hering, 1936 Nationally Scarce B

Numerous mines of this species were recorded at Car Dyke on the outskirts of Peterborough, TF20, on sucker growth of Grey Poplar, 02.xi.2021 (Newman). The moth was first noted in the UK in 1974 in Kent, but has since expanded its range through the south-east and into neighbouring Cambridgeshire.

35.084 Athrips rancidella Cotoneaster Webworm (Herrich-Schäffer, 1854) pRDB2 4

The presence of this species within the county was only discovered at season-end, during a dissection session. A total of five individuals (one male, four female) were identified, having been caught in a garden light trap in Oundle, TL08, between 25.vii.2021 and 08.viii.2021 (Horsnail, det. Hammond). This species was hitherto only recorded in the south London/Surrey/Kent area, and thus appears well away from all other known records. The map below shows the known distribution (as of end 2021), but it would be worth looking for the larval webs wherever the foodplant, Wall Cotoneaster (Cotoneaster horizontalis), may be found.



Reproduced with kind permission of Stephen Palmer (Gellechiid Recording Scheme) https://www.gelechiid.co.uk/gelechiid-recordingscheme



Photo credit: Les Evans-Hill - Adult, Surrey, 2021

38.024 Elachista poae Stainton, 1855 Nationally Scarce B

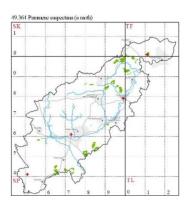
This was the first new species for VC32 recorded during 2021. Numerous larval mines were found just inside the county boundary on 21.iii.2021, along The Nene at Thorpe Meadows in Peterborough, TL19, on Reed Sweet-grass (Newman). Further mines were subsequently discovered nearby on 19.iv.2021 and again along the Nene footpath at Orton Meadows on 24.iv.2021.

49.343 Cydia amplana (Hübner, [1799]) Migrant

A single adult was recorded in a garden light trap in Northampton, Kingsthorpe, SP76, on 11.ix.2021 (Sharpe). The species is known as a primary migrant to the country, and is most frequently encountered in vice counties along the south and east coasts of the UK.

49.364 Pammene suspectana (Lienig & Zeller, 1846)

This species simply has to be hugely under-recorded. It was first noted on 28.v.2021 as a visitor to the FUN pheromone lure, at Duston in Northampton, SP76, (Mundy). It was subsequently recorded a further seven times up until 23.vi.2021, at a total of four different locations through the county. It seems that the FUN lure is quite useful for attracting this species, but there is also a single record of it attending the MOL lure. The larvae are associated with galls found on Oaks, and thus is very likely to be quite widespread. This species seems reluctant to come to light, and so the use of commercial lures may well improve our understanding of this species and show it to be much more widespread than previously thought. The map below shows the distribution of those 2021 records.



Na(Scotland) / Migrant 70.217 Macaria brunneata Rannoch Looper (Thunberg, 1784)

A single Rannoch Looper was taken at light in Kingsthorpe, Northampton, SP76, on 28.vi.202 (Pickering), which did correspond to a period of migration, with others reported elsewhere in the UK on social media around that date. Aside from the known resident populations in Central Scotland, the moth is encountered in southern England as a primary migrant. There is some evidence however to suggest that the species might be establishing colonies in the South-east of England, given an increase in recent records in that area. The larvae feed on Bilberry. It is also worth noting that the Continental form (thus the one likely to be encountered in England) is slightly different to those of the resident Scottish populations.

73.223 Dryobota labecula Oak Rustic Rare migrant* (Esper, 1788)

Another species which appears to be gradually spreading north from its traditional UK home in and around the Durlston Country Park area in The Purbecks. First recorded in VC32 in a garden light trap in Denton, SP85, on 26.x.2021 (Terry). The species has been recorded in recent years in other neighbouring counties, including Cambridgeshire and Bedfordshire. To prove that this was no fluke, a second individual was taken in a garden light trap in Nassington, TL09, a few days later on 30.x.2021 (Smith). Really shows the benefit of keeping moth traps running during autumn and winter.

And one from 2018

49.011 Archips oporana (Linnaeus, 1758) Nationally Scarce A

A belated note which has only recently "come to light", so to speak, regarding a capture of a single adult in Southey Wood, TF10, on 28.vi.2018 (Newman).

3. Significant and Noteworthy Records

Below therefore, are some species of note which were recorded during 2021. The list is by no means comprehensive and I hope I have included everything I had meant to! (inc. species recorded fewer than 5 times up to the end of 2020)

(NB: UK status has not been reviewed/published for a few years, and some species below which are marked as Migrant or Rare Migrant are now believed to be resident in the country. These have been marked with an *)

2.006 Eriocrania cicatricella (Zetterstedt, 1839) Local

Recorded previously on five occasions in the county, mostly around the Salcey Forest area, two mines were found on Birch in Old Sulehay, TL09, on 18.v.2021 (Hammond). This was despite considerable effort looking at Birch for mines, and hence suggests that the species might exist locally at quite low density.

4.040 Stigmella assimilella (Zeller, 1848) Local

This species was first noted in VC32 in 2015, and on only five times prior to 2021. A single mine was found on *Populus alba* on the Farthinghoe Reserve, SP54, on 25.x.2021 (Pridmore). So far, this species has only been found in the southern part of the county.

4.057 Stigmella suberivora (Stainton, 1869) Local

The 4th, 5th and 6th VC32 records were all noted as leaf mines on Holm Oak, and all in the south-west of the county. It was noted at two locations in Edgecote, SP54, on 03.1.2021 (Pridmore). Further mines were recorded on 16.ii.2021 in Midleton Cheney, SP54 (Pridmore).

4.059 Stigmella svenssoni (Johansson, 1971) Local

Still quite a rarity in the county. Recorded only three times previously, the 4th VC32 record was of a single mine found on Oak at Midleton Cheney, SP44, on 24.x.2021 (Pridmore). Those previous records came in 1975, 1989 and 2003, so this is also only the second modern post-2000 record.

7.002 Nemophora metallica (Poda, 1761) Nationally Scarce B

Recorded four times in 2021 (6th to 9th VC32 records): Swaddywell Pit LNR, TF10, 02.vi.2021 (Hillier); Castor Hanglands, TF10, 09.vi.2021 (Hillier), Bradlaugh Fields, Northampton, SP76, on 11.vi.2021 (Parker - two adults nectaring on Scabious), and Helpston, TF10, 13.vi.2021 (Wright).

7.004 Nemophora fasciella (Fabricius, 1775) Nationally Scarce A

This moth has been recorded at a single site in Kingsthorpe, Northampton, for several years now, but in 2021 was finally seen elsewhere. A single adult was recorded by day in a Sywell garden, SP86, on 03.viii.2021 (Dunkley).

10.002 Tischeria dodonaea Stainton, 1858 Local

The 5th VC32 record was of a single leaf mine seen on Farthinghoe NR, SP54, on 09.ix.2021 (Pridmore). Aside from one record at Grafton Park Wood in 2014, all other records have been from the south-west of the county, either in Midleton Cheney or Farthinghoe.

12.019 Nemapogon ruricolella (Stainton, 1849) Nationally Scarce B

Another 5th county record, this time of an adult in Cogenhoe, SP86, on 01.vii.2021 (Seaman). It is interesting to note that all VC32 records of this species have been derived from the use of artificial pheromone lures. This species seems to demonstrate a significant attraction to the VES lure.

12.044 Haplotinea insectella (Fabricius, 1794) Nationally Scarce B

Recorded as new to VC32 in 2019, a further two records were noted as adults to light traps during 2021: 02.vii.2021, Cohgenho e, SP86, (Seaman, det. Hammond); 15.vii.2021, Thrapston, SP97, (Hammond). Both were dissected to confirm ID.

14.008 Bucculatrix cidarella (Zeller, 1839) Local

Apparently fairly widespread throughout the UK, this species has only been recorded on two occasions previously, both as mine s (on Alder). It was recorded a further two times in 2021, both within Farthinghoe NR, SP54: adult to light on 02.vi.2021 (dissected to confirm) and as a mine on 17.x.2021 (both Pridmore).

15.017 Calybites phasianipennella (Hübner, [1813]) Local

Recorded only sporadically in the county, with only four modern, posts-2000 records known, all being in the north-east of the county. A single adult was recorded to a light trap on the old guarry site at Spanhoe Airfield, SP99, on 06.ix.2021 (Follows).

15.066 Phyllonorycter strigulatella (Zeller, 1846) Local

A 5th county record was noted on 17.x.2021 at Farthinghoe NR, SP54 (Pridmore), when numerous mines were recorded on Grey Alder. The plant does not appear to be widespread in the county (per BSBI web-based database), but mines can be plentiful on "infected trees".

15.0931 Phyllocnistis citrella Stainton, 1856 Adventive

This adventive species can be found as mines on the leaves of various citrus plants. First recorded in 2020, a further sighting was made amongst shop produce (specifically on the leaves of Clementines) in Peterborough, TF10, on 01.iii.2021 (Newman).

20.024 Argyresthia semitestacella (Curtis, 1833) Local

The VC32 database contained only one record of this moth, as an adult seen in Weekley Hall Woods in 1908. It was only recorded again in 2020 at Polebrook Airfield. A single adult was taken in a garden light trap in Oundle, TL08, on 28.vii.2021 (Horsnail, det. Hammond). The larvae feed within the shoots of Beech and quite possibly overlooked due to similarity to congener species, particularly *A. albistria*. Otherwise, the species is reported to be fairly widespread though the UK.

32.009 Agonopterix purpurea (Haworth, 1811) Local

The 5th modern record was of a single adult to light at Ring Haw, TL09, on 07.ix.2021 (Follows, det. Mackay). This I feel is probably another species that is under-recorded, possibly due to its relatively small size, or more likely due to its preference for dry, grassland habitats, which are not as regularly surveyed as gardens and woodland sites. The larvae feed on plants such as Wild Carrot and Cow Parsley.

32.024 Agonopterix assimilella (Treitschke, 1832) Local

This is a very common moth, which can be found throughout the British Isles. However, it has only been recorded on four previous occasions in VC32, mainly due to its larval foodplant being Broom, which is not widespread locally. The 5th county record was of an adult to light at Fineshade, SP99, on 19.viii.2021 (Follows, det. Mackay). It was also recorded from a garden moth trap in Helpston, TF10, on 06.ix.2021 (Wright, det.).

It is worth noting that the larval spinnings are very easy to find on Broom (see image) in late winter and early spring, and thus further records might be gleaned by this method on suitable habitats.



Photo credit: Heidrun Melzer, per Lepiforum.org

32.038 Depressaria badiella (Hübner, 1796) Local

A species more likely to be found on dry grassland sites, more so if they are sandy or chalky in nature. Thus the 5 th county record (and only the 4th modern record) of this relatively widespread, but not oft recorded species was of an adult to light at Swaddywell Pits NR, TF10, on 09.ix.2021 (Hillier, det Symonds). The adults are quite difficult to distinguish from other Depressaria species and are possibly being overlooked.

35.0191 Anarsia innoxiella Gregersen & Karsholt, 2017 Rare

This species was only identified as being separate from *A. lineatella* in 2017 and so the first formally recognised record for VC32 was made in 2019. There were three further confirmed records in 2020, but an additional seven records have been received for 2021. All records are of adults attracted to light traps, and are between 02.vii.2021 and 18.vii.2021.

35.029 Brachmia inornatella (Douglas, 1850) Nationally Scarce A

A species mostly associated with wetland habitats, whose larvae are thought to feed inside the stems of Common Reed. The 3 rd VC32 record was of a single adult to a garden light trap in Thrapston, SP97, on 24.vi.2021 (Hammond). The garden is quite close to The Nene and often attracts species which rely on damp habitats.

35.033 Platyedra subcinerea (Haworth, 1828) Nationally Scarce B

A single adult taken in a garden light trap in Kingsthorpe, Northampton, SP76, on 21.vii.2021 (Sharpe). This is the only post-2000 record of the species in the county, with all others being recorded between 1907 and 1945, with Northamptonshire being at the north-western edge of its known range in the UK. The larvae are known to feed on Common Mallow, Tree Mallow and Hollyhock. NB: extreme care is required to differentiate this species from Hollyhock Seed Moth, *Pexicopia malvella*.

35.035 Chrysoesthia drurella (Fabricius, 1775) Local

In this author's humble opinion, possibly one of the most attractive micro-moths in the UK, but sadly not often seen given its diminutive proportions. The moth has been recorded five times in VC32 up to the end of 2020, as both leaf-mine and adult. 2021 saw three additional records thus:

Staverton, SP56, 17.vi.2021 (Collinson) – adult to light Helpston, TF10, 24.vi.2021 (Wright) – adult noted by day Farthinghoe NR, SP54, 11.vii.2021 (Pridmore) – mines on *Chenopodium*



35.073 Monochroa palustrellus (Douglas, 1850) Nationally Scarce B

The 3rd county record for this species was noted during 2021. This of six adults to light on a meadow in Oundle, TL08, on 16.vii.2021 (Horsnail). Larval foodplant is Curled Dock, which appears to be widespread and very common in the county, and thus perhaps surprising therefore that there are only three records in the database to date. Elsewhere It is associated with waste ground, roadside verges and pasture habitats.

36.002 Batrachedra pinicolella (Zeller, 1839) Nationally Scarce B

The 4th and 5th county records were noted during 2021, both as adults attracted to light:

Silverstone, SP64, 19.vii.2021 (Penney)

Southorpe Meadow NR, TF00, 25.viii.2021 (Bennet)

This species may become the subject of further discussion in the UK, given the presence of a cryptic species on The Continent, *B. confusella*. Recent DNA barcoding (Berggren et al, 2022) has helped to highlight the differential biology of the two species, with *B. pinicolella* being associated with Norway Spruce, and *B. confusella* with Scots Pine (some texts list both plants as larval pabulum for *B. pinicolella*).

37.036 Coleophora conyzae Zeller, 1868 Nationally Scarce B

The 3rd county record was of an adult to light in Oundle, TL08, on 19.vii.2021 (Horsnail, det. Hammond). Further records may be obtained by searching for the larval cases on Ploughman's Spikenard and Common Fleabane (cases have a distinctly hairy/downy appearance when on this latter foodplant).

38.022 Elachista gleichenella (Fabricius, 1781) Local

Another stunning little moth! Four previous records between 1998 and 2019, with the 5th VC32 record being of an adult seen on 22.vii.2021 at Farthinghoe NR, SP54 (Pridmore). The larval blotch-mines are extremely obvious on Wood Rush during late winter and early spring, and so further records could be gleaned in this manner.



Photo credit: Tim Pridmore

40.007 Mompha bradleyi Riedl, 1965 Nationally Scarce B

A 6th VC32 record was of an adult found indoors on 08.xi.2021, in Thrapston, SP97 (Hammond). The moth was dissected to confirm identification, and noted to be the second record for this site.

43.007 Scythris limbella (Fabricius, 1775) pRDB3

A fairly recent addition to the VC32 list, with three records each in 2018 and 2020. A further two records were received for 2021, both recorded as single adults to light:

Farthinghoe NR, SP54, 16.vi.2021 (Pridmore)

Kingsthorpe, Northampton, SP76, 06.ix.2021 (Sharpe)

45.034 Merrifieldia baliodactylus Dingy White Plume (Zeller, 1841) Nationally Scarce B

Following on from the first record in 2020, the species was recorded twice more on the same site (Swaddywell Pits NR, TF10) on 02.vi.2021 & 03.vi.2021 (Hillier)

49.011 Archips oporana (Linnaeus, 1758) Nationally Scarce A

As per my note in an earlier section of this report, this is the tale of a county first, cruelly snatched away! A 2 nd VC32 record therefore, of a single adult to light at Castor Hanglands, TF10, on 02.vii.2021 (Hillier).

49.043 Exapate congelatella (Clerck, 1759) Local

A great argument for running moth traps throughout the winter months: a single adult has been recorded in Easton Hornstocks, TF10, on 13.xii.2021 (Follows). This is only the 2nd VC32 record of this species, the only other being of a single adult seen in or near Gretton in November 1941. The species is widely distributed in the UK, and larvae are reported to be polyphagous.

49.116 Aethes williana (Brahm, 1791) Nationally Scarce B

Five previous records in total, but only three of those have been since 2000 (in fact it wasn't recorded between 1943 and 2017). Recorded at Spanhoe Airfield quarry, SP97, area in May 2020, a further singleton was netted by day at the same site on 02.vi.2021 (Hammond).

49.122 Aethes dilucidana (Stephens, 1852) Nationally Scarce B

The 5th modern county record was actually of two adults to light at Spanhoe Airfield quarry, SP97, on 08.vii.2021 (Follows). The adult bears strong resemblance to both *A. francillana* and *A. beatricella*, so care is needed to determine ID correctly, but careful searches of dry, calcareous grassland by might yield further examples. The adults are easily disturbed by day, but become more active towards dusk.

49.184 Lobesia reliquana (Hübner, [1825]) Local

A moth that seemingly only attends light traps very sparingly, and possibly under-recorded as a result. Locally common elsewhere in the UK, the 3rd VC32 record was of a single adult taken at light in Fineshade, SP99, on 02.vi.2021 (Follows). Further records might be obtained by beating Oaks, Birch and Blackthorn during the day during the flight period, May and June.

49.228 Epinotia sordidana (Hübner, [1824]) Nationally Scarce B

This species has three old records, between 1907 and 1934, but then none again until 2013. Associated with Alder, a single adult was recorded to light in Easton Hornstocks, TF00, 26.x.2021 (Follows, det. Mackay), and therefore the 6th VC32 record, which follows on from a record in the same area from 2019. Identification of the adult requires care, given similarity to some forms of *E. caprana*, and thus specimens should be retained for dissection.

49.232 Epinotia maculana (Fabricius, 1775) Nationally Scarce B

The 5th county record of this moth came in the form of two adults to light in Fineshade, SP99, on 01.x.2021 (Follows, det. Mackay). The moth is principally associated with Aspen, but also apparently the larvae feed on other Poplar species. The adult flies from August and into Autumn, but so far, all VC32 records are from September and October. It is also reported that the adults may be recorded by beating branches of Aspen during the day.

49.242 Epinotia nanana (Treitschke, 1835) Nationally Scarce B

A fortuitous daytime discovery whilst attending some pheromone lures hanging in adjacent trees, the 5th VC32 record was attained when two small larvae were seen abseiling on silk thread from Norway Spruce on 16.iv.2021, in woodland along the former runway at Grafton Underwood, SP98, (Hammond). The larvae were retained and reared to confirm identification.

49.246 Epinotia pygmaeana (Hübner, [1799]) Nationally Scarce B

An example of targeted pheromone lure "by-catch" in operation. A single adult was netted fluttering around an Emperor Moth pheromone lure (EMP) hung in amongst a Norway Spruce plantation on 16.iv.2021, in woodland along the former runway at Grafton Underwood, SP98, (Hammond). This constitutes the 5th confirmed VC32 record, and the only modern, post-2000 record (previous was 1997). The moth was attracted around noon on a sunny day. The species is otherwise rarely encountered as the adults tend to remain at tree-top height and are rarely attracted to light overnight, possibly accounting for the paucity of records. This species has been noted to be attracted to the EMP lure on The Continent and this is evidence to support that finding. It may be worth trying this lure, and maybe others (e.g. FUN, MOL, SKI, etc) in suitable habitat to see if the moth is actually more widespread that thought.

49.311 Dichrorampha aeratana (Pierce & Metcalfe, 1915) Local

One of several very similarly-marked species which require dissection for confirmation, and thus very likely to be more widespread than current records suggest. The 4th and 5th confirmed VC32 records are of solitary adults thus: Farthinghoe NR, SP54, 02.vi.2021 (Pridmore, det. Hammond) – a previously unknown site for the species Harrington Airfield, SP77, 25.vi.2021 (Sharpe, det. Hammond) – a site with three previous records between 2012 and 2018.

49.334 Cydia cosmophorana (Treitschke, 1835) Nationally Scarce B

A relatively uncommon species, but one that appears to be on the increase. First noted in the county in 2016, the moth was recorded again in 2017 and 2020. 2021 saw a further three records (thus 5th to 7th), with one of those being of an adult that appears to have been attracted to the Goat Moth pheromone. 2021 records are all of singletons to light:

Old Head Wood, SP98, 05.vi.2021 (Hammond et al)

Old Flead Wood, 5F 98, 03.VI.2021 (Hallillolld e

Silverstone garden, SP64, 13.vi.2021 (Penney)

Thrapston garden, SP97, also 13.vi.2021 (Hammond, det.) — which must be of a vagrant adult, as there is very little Scots Pine in the vicinity of this site.

49.351 Grapholita lunulana ([Denis & Schiffermüller], 1775) Nationally Scarce B

The moth was noted at Spanhoe Airfield, SP99, on three separate occasions during 2020, which was the first time it had been seen in the county. A further record of the moth on the same site was made on 02.vi.2021 (Hammond) as an adult netted during the day, and another was seen at a new location during a daytime visit to Swaddywell Pits NR, TF10, on 05.vi.2021 (Howarth). This diminutive moth appears to be exclusively diurnal, and to be found on dry, sunny grassland sites where Vetch es abound. It appears that VC32 is at the southerly edge of its currently known UK distribution.

49.358 Grapholita tenebrosana Duponchel, [1843] Local

I feel confident in saying that this species is grossly under-recorded, but which will be become much better understood with the use of pheromone lures (a statement that could be applied with equal certainty to several other Tortrix species). There were just four records in the database up to the end of 2020 (two to light, one to lure and another in 1938 where method was not stated), but a further seven were added during 2021, all as adults attracted to pheromone lures. The most popular lure appears to be FUN (designed for *Grapholita funebrana*), but there is also a record to ARG (lure for *Pammene argyrana*). The updated distribution map copied below demonstrates the wide distribution in those records, and thus I suspect the moth may be encountered wherever Dog Rose (and perhaps Rowan too) may be found.

[NB: the adults can be differentiated from *G. funebrana* by looking at the tips of the palpi (dark in *funebrana*, pale in *tenebrosana*) but worn adults should be dissected to confirm ID.]

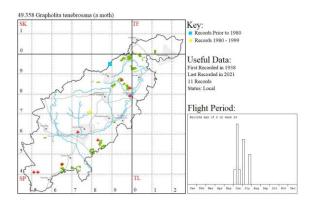




Photo credit: Ian Smith via UK Moths

49.365 Pammene albuginana (Guenée, 1845) Local

As per my comments attributed to *G. tenebrosana*, a moth that was previously rarely encountered, as I believe the moth is not strongly attracted to light. There are six records for 2021, some of multiple males, all of which are as a result of the use of pheromone lures. This species also shows a liking for the FUN lure, but has also been recorded to SAL (Sallow Clearwing lure) and one devised to attract *Cydia indivisa*. Early records are most likely as a result of adults emerging from collected Oak Galls. Again, I would strongly suspect that the moth may be recorded quite widely in oak woodland with the deployment of lures.

63.109 Pediasia contaminella (Hübner, 1796) Nationally Scarce B

The 2nd VC32 record was of a single adult attracted to garden light in Wollaston, SP96, on 31.vii.2021, (Peilow, det/photo Hammond). The only other record was also from a garden light trap in Northampton in 2018 (dissected to confirm). Extreme care is needed to separate the adults from some of the other "grass moths".

70.149 Eupithecia abietaria Cloaked Pug (Goeze, 1781) Local(alien-foodplant)

This is the 8th VC32 record, but more significantly, is the first one seen for nearly 30 years, with the last record being in Geddington Chase, 21.vi.1993. The 2021 record is of a single moth which was taken in a garden light trap in Northampton, SP76, on 01.vii.2021 (Pickering). Historically, Geddington Chase and Yardley Chase were the two main sites for the moth, not that it was ever frequent. Literature though does indicate that it only comes sparingly to light traps. The larvae feed on mature Norway and Sitka Spruce, and Noble Fir.



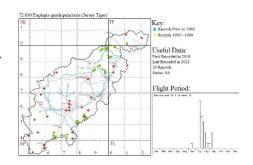
Photo credit: Tim Pickering

72.011 Lymantria dispar Gypsy Moth (Linnaeus, 1758) Vagrant/Accidental

Oddly, only a single record in 2021, which was actually of cocoons and pupal exuviae in a garden in Thrapston, SP97, (Hammond), noted during gardening work in February. This is in contrast to the seven records noted during 2020.

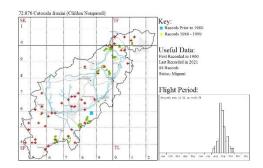
70.030 Euplagia quadripunctaria Jersey Tiger (Poda, 1761) [Nb]

This species is rapidly expanding its range, with an increasing number of records in VC32. First seen here in 2018, with a total of nine records up to the end of 2020. The moth was seen on 21 occasions in 2021, ranging from 16.vii.2021 to 08.ix.2021, with many of those sightings coming from members of the public.



72.076 Catocala fraxini Clifden Nonpareil (Linnaeus, 1758) Migrant*

2021 saw a further 37 records, totalling approximately 44 individual moths. The county therefore now boasts 88 records of the moth, all bar one of those having been since 2019. I am fairly confident that I can state that the "Migrant" status no longer applies here!



72.081 Catocala sponsa Dark Crimson Underwing (Linnaeus, 1767)

Following on from its apparent reappearance in 2020, the species was recorded a further three times during 2021:

The 4th VC32 record was of a singleton attracted to light at Pitsford Reservoir, SP77, on 29.vii.2021 (Cross et al).

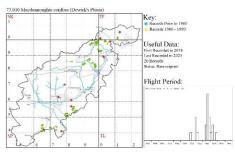
Easton Hornstocks, TF00, another single adult to light on 02.viii.2021 (Follows). Delapre Abbey, Northampton, SP75, in the traditional manner as a single moth attracted to sugar, 19.viii.2021 (Laney).



73.010 Macdunnoughia confusa Dewick's Plusia (Stephens, 1850) Rare migrant*

This certainly appears to be a species that is undergoing a significant expansion in its range. First recorded in the county in 2018, 2021 saw an amazing 15 additional records, totalling approximately 22 individuals. Records date between 30.vii.2021 and 23.x.2021.

The moth does attend light traps, albeit quite sparingly, but it is also very attracted to some pheromone lures, in particular the one intended for the Ni Moth. This method accounts for approximately half of the 2021 records.



73.300 Mythimna l-album L-album Wainscot (Linnaeus, 1767) Nb

A single L-album Wainscot was recorded in the Pitsford Reservoir moth traps, SP77, on 29.ix.2021 (Cross et al). This constitutes the 6th VC32 record, but also the 3rd record from Pitsford. It is of course very difficult to demonstrate that a moth is resident unless larvae are found, but this certainly raises the distinct possibility that it might be breeding locally. Looking at the entry for this species in the recently published Atlas of Britain and Ireland's Larger Moths, it seems that the cluster of records in VC32 is quite a long way away from other records, most of which appear around the southern and eastern English counties, with some others along the southern coast of Wales. If the species was demonstrating stronger migratory tendencies, then I would expect the spread of records to include other, more central, counties. One to look out for!

73.356 Xestia agathina Heath Rustic (Duponchel, 1827) Local

A presumed vagrant was reported to a garden light trap in Nassington, TL09, on 04.ix.2021 (Smith). Given the paucity of naturalised Heather in the county, records of this moth most likely derive from garden plantings. This example is the 6th all-time VC32 record, but only 4th confirmed modern post-2000 record.

4. Update of UK BAP Species on the VC32 List

Following on from the summary posted last year, here is a further update of the UK BAP species in VC32 (limited to those species with VC32 records dated after 1st January 1980):

49.348 Grapholita pallifrontana Liquorice Piercer Zeller, 1845 [pRDB3]

Further targeted fieldwork was conducted throughout VC32 in 2021, resulting in 5 records of the species, but only 8 individuals. No new sites were noted for the species, although this may reflect difficulties in recorder activity due to Covid, etc.

50.001 Cossus cossus Goat Moth (Linnaeus, 1758) [Nb]

No records in 2021.

54.002 Adscita statices Forester (Linnaeus, 1758) [Local]

No VC32 records since 2010.

70.035 Cyclophora porata False Mocha (Linnaeus, 1767) [Local]

No VC32 records since 2011.

70.201 Trichopteryx polycommata Barred Tooth-striped ([Denis & Schiffermüller], 1775) [Na]

No VC32 records since 1987.

72.070 Trisateles emortualis Olive Crescent ([Denis & Schiffermüller], 1775) [RDB3]

No VC32 records since the singleton in 2017.

73.031 Tyta luctuosa Four-spotted ([Denis & Schiffermüller], 1775) [Na]

Five separate records of this moth were noted during the year. Two of these came at a known and regularly surveyed site along the railway at Werrington, Peterborough, TF10, (Waring), which resulted in 5 individuals seen between 24.vi.2021 and 01.vii.2021.

Singletons were taken at light in a Barnack garden, TF10, on 27.vi.2021 and again 19.vii.2021 (Mould).

A further record was received for a single adult having been taken in a garden light trap in Helpston, TF10, on 19.vii.2021 (Wright).

The vast majority of recent records (i.e., the last 5 years) are from the 10Km grid square TF10

73.149 Photedes extrema Concolorous (Hübner, [1809]) [RDB3]

Another good year for records. 23 records of approx. 160 individuals, between 02.vi.2021 and 30.vii.2021, mostly within known populations/sites, with the occasional garden record which may well be of possible wandering adults.

73.214 Cosmia diffinis White-spotted Pinion (Linnaeus, 1767) [Na]

Only 2 records for this species during 2021. One record (single adult) was from a known site near Peterborough, namely Swaddywell Pits NR, TF10 on 14.viii.2021 (Hillier), but the other was of a singleton in a garden light trap in Bozeat, SP95, on 18.vii.2021 (Downey, det/photo, Hammond). This date seemed to be a little on early-side for the moth, but the photo confirmed the ID. This Bozeat record is well away from all other modern, post-2000 records in the county, and could well be a vagrant adult, although there are modern records in nearby Bedfordshire.

73.218 Dicycla oo Heart Moth (Linnaeus, 1758)[RDB3]

No VC32 records since 2006. Poor weather during the flight period prevented a couple of targeted surveys in and near a previously known site.

73.259 Polia bombycina Pale Shining Brown (Hufnagel, 1766) [Nb]

No VC32 records since 1992.

5. Migrant Species

Below is a brief table of known migrant species to have been recorded during 2021.

АВН	Taxon	Vernacular	Approx. No. Individuals
18.001	Plutella xylostella	Diamond-back Moth	89
49.343	Cydia amplana		1
63.031	Udea ferrugalis	Rusty-dot Pearl	21
63.048	Palpita vitrealis		1
63.052	Nomophila noctuella	Rush Veneer	13
69.004	Agrius convolvuli	Convolvulus Hawk-moth	1
69.010	Macroglossum stellatarum	Humming-bird Hawk-moth	10
69.014	Hyles gallii	Bedstraw Hawk-moth*	4
70.038	Rhodometra sacraria	Vestal	1
70.047	Nycterosea obstipata	Gem	2
70.217	Macaria brunneata	Rannoch Looper	1
73.015	Autographa gamma	Silver Y	708
73.087	Spodoptera exigua	Small Mottled Willow	2
73.295	Mythimna vitellina	Delicate	4
73.307	Peridroma saucia	Pearly Underwing	1
73.327	Agrotis ipsilon	Dark Sword-grass	26

^{*}NB: Bedstraw Hawk-moth, *H. gallii*, is still noted as a migrant species, but it has been recorded in its larval stage in VC32 on several occasions, including one in 2021 noted in Kingsthorpe, Northampton, SP76, on 27.viii.2021 (Pickering). Thus, the species is included here for neatness and completeness.

6. Obituary

John Ward

30th July 1937 - 23rd January 2022

Although not strictly "2021", I feel it was appropriate to mention the passing of John Ward in this review. John died unexpectedly on Sunday, 23rd of January. As many of you will know John was the previous County Macro Moth Recorder for Northamptonshire/VC32, a role he held for some 40 years, until he relinquished it in May 2015. John's interest remained firmly with the macro moth species rather than the micros, proudly proclaiming himself to be a "Heart and Dart man".

John was instrumental in gathering macro moth records from all eras, poring over notebooks of earlier recorders for information and searching through specimens lodged in local museums. He was therefore the driving force behind the digitisation of these data, eventually putting them into a single database (aided hugely by his wife, Brenda). This then enabled local distribution maps to be created for the first time. These were then added to a newly created website, along with a write up for every species that had ever been recorded in the vice county. John's attention to detail in sorting through these records was nothing short of legendary, and his recall of species, sites and dates was most enviable! This information provided the impetus to search for some of the apparently long-lost species within the county, many of which had not been recorded for many years. Very often these activities would take the form of a moth group field trip, an activity that continues to this day.

Away from his duties as County Moth Recorder he spent a lot of time mothing out of county with his good friend Derek Howton. The pair would travel the length and breadth of the United Kingdom in search of rare and elusive species that could not be seen locally.

After retiring as the CMR, he directed his efforts into completing a book documenting the current state of Northamptonshire's macro moths, and thus distilling and formalising the information which was available on the website. "The Larger Moths of Northamptonshire & the Soke of Peterborough" was privately published in 2015. The tome includes comprehensive notes on some of the earlier recorders and their contributions to our knowledge base. It also contains a very handy guide to some of the local sites, many of which have been visited by the moth group over the years.

A reasonable cohort of VC32 moth recorders were able to be present for John's funeral, which was held in Kettering on 10th February 2022. A few of us subsequently retired to the nearby Telford Lodge with his other close friends and family, where we took time to recall some personal memories, one or two of which were unknown to his two daughters.

For those who would like to make a donation in John's name (for either Butterfly Conservation, or The RSPCA) these may be made via Averil Phillips & Family Funeral Directors.



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