

CHESHIRE (VICE COUNTY 58)

MOTH REPORT FOR 2021



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Introduction

"Where have all the moths gone?" was the cry around the county in April and May as people uncovered disappointing and near-empty traps at that time. Then, from mid-July, just as many admitted to being overwhelmed with high numbers of different species.

Judging from posts on the Cheshire Moth Group on Facebook or on the rECOrd Moth Group forum, we sensed that we were seeing more Beautiful Hook-tips or Buff-tips than normal - but where were the Dun-bars or the Burnished Brasses?

Social media - great for sharing news quickly - can result in views being quickly accepted as facts. But does the Annual Moth Report bear out the anecdotal evidence, once all the numbers have been crunched?

In 2021, nearly one thousand different species were recorded in the county; the total number of moth records continued to rise, exceeding one hundred thousand for the first time; the number of recorders in the county reached 268 (up by 46), including ninety who submitted a batch of records for the year. This Annual Report contains a summary and analysis of that moth recording in 2021.

However, there must be room for both anecdotes and comprehensive statistically-based reporting. Readers can judge to what extent their own experience tallies with the results presented in this report!

- A list is provided, itemising all micro-moth species that were recorded three or fewer times during the year as well as all macro-moth species that were recorded five or fewer times.
- The area of VC58 covers at least a part of 49 "hectads" grid-reference squares of 10km by 10km. A total of 460 species were recorded for the first time in their respective hectads in 2021. These are listed for each hectad, in turn.
- The increased range of eight species across the county is illustrated in a set of maps.
- Thirteen migrant species those species that have flown or been transported by air-streams from origins outside of the British Isles were recorded in 2021 in Cheshire and are tabulated.

The table below shows the number of species and records in Cheshire over the decade from 2012 to 2021. The total number of records submitted in 2021 topped one hundred thousand for the first time. The number of different species of micro-moths recorded in the county was down from 561 to 530, while the number of macro-moths (435) was almost unchanged.

	Species			Records		
Year	Micro's	Macro's	Total	Micro's	Macro's	Total
2012	449	381	830	12,613	32,556	45,169
2013	505	406	911	17,937	44,940	62,877
2014	515	409	924	23,508	53,853	77,361
2015	490	420	910	17,091	47,901	64,992
2016	519	411	930	21,411	44,543	65,954
2017	526	422	948	21,340	51,567	72,907
2018	543	427	970	24,623	54,755	79,378
2019	546	416	962	23,359	48,971	72,330
2020	561	434	995	26,817	64,682	91,499
2021	527	435	962	26,228	75,449	101,677

* The number of macro-moths reported in 2020 was 435 but included one species that was later re-determined.

The table, below, shows the "turnover" of macro-moth species, from last year.

Macros in 2020, but not 2021	Macros in 2021, but not 2020		
	Red-tipped Clearwing; Mullein Wave; July		
Death's-head Hawk-moth; Least Carpet;	Belle; Gem; Red Carpet; Dark Spinach;		
Smoky Wave; Barred Rivulet; Angle-barred	Mallow; Pale November Moth; Small		
Pug; Clouded Magpie; V-Moth; Grey	Autumnal Moth; Dark Umber; Satyr Pug;		
Scalloped Bar; Clouded Buff; Red-necked	Barred Umber; Brussels Lace; Grass		
Footman; Marsh Oblique-barred; Beautiful	Emerald; Clifden Nonpareil; Coronet;		
Marbled; Bordered Sallow; Scarce Bordered	Marbled Green; Haworth's Minor; Brown-		
Straw; Dusky Sallow; Fen Wainscot; Twin-	veined Wainscot; Webb's Wainscot; Dusky-		
spotted Wainscot; Tawny Pinion; Northern	lemon Sallow; Golden-rod Brindle; Lead-		
Deep-brown Dart; Blossom Underwing;	coloured Drab; Northern Drab; Barred		
Shore Wainscot; Portland Moth; Light	Chestnut; White-marked; Heath Rustic.		
Feathered Rustic; Heart and Club.			

A cold January and early February gave way to a milder early Spring, which turned into a season of contrasts. Overall it was colder than average, with notable warm spells only at the end of March and the end of May. April turned very cold, with a number of frosts, but was otherwise dry and sunny. May was very unsettled and cold except for the final few days.

The cold temperatures overnight in April resulted in distinctly poor numbers of different species being trapped, as illustrated in the graph below.

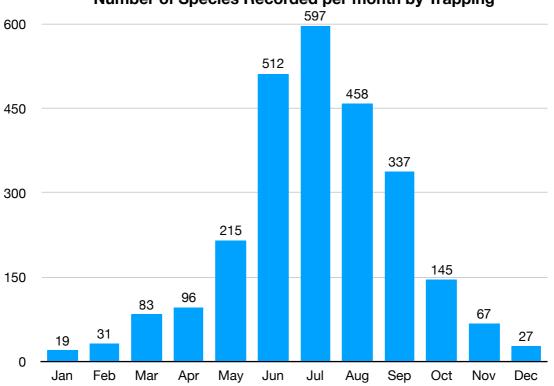
June began warm and continued unexceptionally into early July, until a hot spell during the second half of the month. Early August was unsettled, but mostly dry until the end of the month.

Again, the graph below shows that the high temperatures from mid-July brought about a peak for the year in the number of recorded species.

September was mostly settled, albeit with some outbreaks of rain. Cooler conditions kicked in for the last few days.

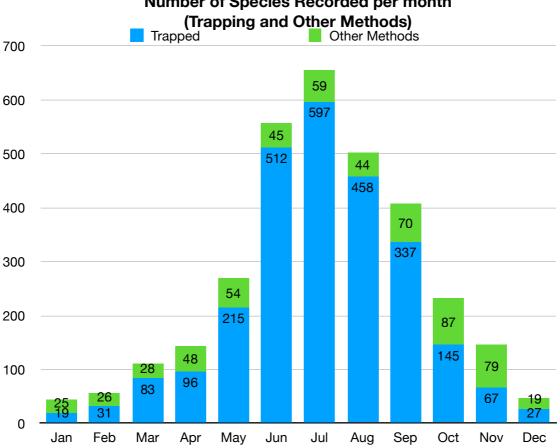
The year ended with mild temperatures and occasional heavy rain.

Source: https://www.metoffice.gov.uk/research/climate/maps-and-data/summaries/index



Number of Species Recorded per month by Trapping

Figure 1: Graph, showing the number of species trapped per month in 2021.



Number of Species Recorded per month

Figure 2: Graph, showing the number of species per month in 2021 (all methods).

The extent to which other methods of observing moths (daytime observations, beating, leaf mines, etc) contribute to the total counts of species can be seen from the graph, above.

(In the analysis above, trapping includes light trapping and pheromone trapping).

Least-recorded Species in 2021

As always, time and effort dictate that this report cannot be a complete analysis of the year's records; it does however itemise all micro-moth species that were recorded three or fewer times during the year as well as all macro-moth species that were recorded five or fewer times.

Throughout what follows, header information relating to each species appears thus:

3.004 **Gold Swift** *Hepialus hecta* (Linnaeus, 1758) Which, reading left to right detail:

- Agassiz, Beavan & Heckford species number
- Species' vernacular name
- Species' taxonomic name
- Species' Author(s)

1.004 *Micropterix aruncella* (Scopoli, 1763)

One at Carleton Road, Higher Poynton on 3rd June and two (male and female) at the same site six days later (SHH). Another at Cheadle Hulme on 6th June (DH-T).

2.003 Eriocrania unimaculella (Zetterstedt, 1839)

A blotch leaf mine on birch sapling (from the leaf edge) at Midgley Lane, Wildboarclough on 16th May (A&JB). The larva had vacated the leaf ten days later.

2.004 Eriocrania sparrmannella (Bosc, 1791)

A mine, on birch, at Stockport on 22nd June (SHH) and six mines at Thornton-le-Moors on 17th July (SWH).

2.006 Eriocrania cicatricella (Zetterstedt, 1839)

Two blotch leaf mines on birch sapling (from the leaf edge) at Midgley Lane, Wildboarclough on 23rd May (A&JB). The mines were vacated by 26th May. Adult emerged on 30th March 2022.

2.007 Eriocrania semipurpurella (Stephens, 1835)

One at Linley Lane, Alsager on 30th March (MD) and another the next day at the same site. One at Carleton Road, Higher Poynton on 2nd April (SHH). All were determined by examination of the genitalia.

4.002 *Stigmella lapponica* (Wocke, 1862) Mines on birch at Long Highlees Wood, Over Alderley on 16th September (SHH).

4.005 *Stigmella betulicola* (Stainton, 1856)

A leaf mine at Ince Park on 28th July (SWH) and three, on a single leaf of birch, at Lindow Common on 9th November (TW).

4.006 *Stigmella sakhalinella* (Puplesis, 1984)

A leaf mine on birch at Tytherington on 5th September (TW) and numerous mines, also on birch, at Ellesmere Port on 3rd November (HJ).

4.008 Stigmella glutinosae (Stainton, 1858)

A larva, showing a brown ventral prothoracic plate, on alder, at Peover Superior on 25th October (TW).

4.023 *Stigmella crataegella* (Klimesch, 1936) Two mines at Gowy Meadows CWT on 24th July (SWH), one larva at Common Lane, Waverton on 5th August (H&BC) and two more, on hawthorn, at the same site on 20th August.

4.061 Stigmella atricapitella (Haworth, 1828)

A mine on oak, with egg on the underside, at Sale on 22nd November (BS). The parasitised larva had black sclerites.

4.068 *Trifurcula immundella* (Zeller, 1839)

Four mines (one tenanted) on broom twigs at Thurstaston Country Park on 21st February (PH). Black egg visible.

4.071 *Bohemannia pulverosella* (Stainton, 1849) One larva on apple at Common Lane, Waverton on 7th July (H&BC) and numerous mines, also on apple, at Willaston, Wirral on 02 November (HJ).

4.076 *Ectoedemia decentella* (Herrich-Schäffer, 1855) One at Dane Road, Sale on 25th September (JPS).

4.077 *Ectoedemia weaveri* (Stainton, 1855) Mines on cowberry at Brushes Valley on 28th February and on 30th March (BS).

4.085 Ectoedemia argyropeza (Zeller, 1839)

Twenty mines on fallen alder leaves at Burton Mere Wetlands RSPB (East) on 8th November (GJ) and a larva on an aspen leaf at Macclesfield Road allotments, Whaley Bridge on 17th November (AS).

4.088 Ectoedemia heringella (Mariani, 1939)

Over a hundred mines at Crewe on 5th January (BS), many tenanted mines on holm oak, at Ford Lane, Ness Gardens on 20th February (GJ) and another mine on holm oak at Eastham Country Park on 19th March (PH). The first ever Cheshire record was in 2019.

4.094 *Ectoedemia angulifasciella* (Stainton, 1849) Ten mines at Gowy Meadows CWT on 9th October (ED, SWH), four at the same site on 16th October and six more there on 25th October (SWH).

4.100 *Ectoedemia minimella* (Zetterstedt, 1839) A mine at Ince Park on 28th July (SWH) and more, on birch, at Long Highlees Wood, Over Alderley on 16th September (SHH).

6.004 *Heliozela resplendella* (Stainton, 1851) Mines on alder at Long Highlees Wood, Over Alderley on 16th September (SHH).

7.001 *Nemophora degeerella* (Linnaeus, 1758) One at Broomhall, Nantwich on 30th May (PG) and one at Burton Mere Wetlands RSPB (East) on 20th June (RW).

7.003 *Nemophora cupriacella* (Hübner, [1819]) Two at Romiley Golf Course on 18th July (AB).



Andy Bissitt

8.003 *Incurvaria oehlmanniella* (Hübner, 1796) One at Peckforton Hill on 13th July (MRW).



Mike Whiteside

8.005 *Phylloporia bistrigella* (Haworth, 1828) One at Linley Lane, Alsager on 1st June and another at the same site the next day (MD).

11.002 *Narycia duplicella* (Goeze, 1783) One at Dane Road, Sale on 9th June (JPS).

12.010 *Morophaga choragella* ([Denis & Schiffermüller], 1775) One at Dane Road, Sale on 11th September (JPS).



John P Shaughnessy



12.011 *Triaxomera fulvimitrella* (Sodoffsky, 1830) One at Bourne Street, Wilmslow on 17th June (TL).

Ted Lock

12.016 **Cork Moth** *Nemapogon cloacella* (Haworth, 1828) One at Meadowside, Burwardsley on 1st June (MRW) and one at Highfield Road, Hazel Grove on 7th September (JWR). Both determined by genitalia examination.

12.019 Nemapogon ruricolella (Stainton, 1849)

One, attracted to VES pheromone lure, at Kent Close, Bromborough on 9th July (PH).Determined by genitalia examination. This was only the second record of this species in Cheshire, the first being at Disley in 1947.

12.023 *Triaxomasia caprimulgella* (Stainton, 1851) Two, to pheromone lure for Lunar Hornet, at Kent Close, Bromborough on 2nd July (PH) - the first time that this species has been recorded in Cheshire.



Paul Hopkins

12.027 *Tinea pellionella* (Linnaeus, 1758) One at Badger Bait, Little Neston on 26th August (GJ). Determined by genitalia examination.

12.035 *Niditinea striolella* (Matsumura, 1931)

One at Kent Close, Bromborough on 2nd July (PH), determined by genitalia examination. This is only the second record of this species in Cheshire, the first being at Brereton Heath in 1986.

12.039 Monopis crocicapitella (Clemens, 1859)

One at Shannon Close, Willaston, Nantwich on 24th October (DT), determined by genitalia examination. This is only the second record of this species in Cheshire, the first being at Hilbre Island in 2012.

12.047 Psychoides verhuella (Bruand, 1853)

A larva at Common Lane, Waverton on 21st April (H&BC). The adult emerged on 28th April from collected fern fronds.

14.003 *Bucculatrix maritima* (Stainton, 1851) One at Kent Close, Bromborough on 3rd September (PH).



Paul Hopkins

14.008 *Bucculatrix cidarella* (Zeller, 1839) One at Carleton Road, Higher Poynton on 13th June and four mines on alder at Over Alderley on 16th September (SHH).

15.003 *Caloptilia populetorum* (Zeller, 1839)

One at Hightree Drive, Henbury on 30th March (TW), another on the same day at Woodlands Drive, Chester (AN) and one at Linley Lane, Alsager on 21st July (MD).

15.011 Caloptilia falconipennella (Hübner, [1813])

One at Kent Close, Bromborough on 30th March (PH) and another, one day later, at Linley Lane, Alsager (MD). Both were determined by genitalia examination. A new county record.

15.019 Acrocercops brongniardella (Fabricius, 1798)

A vacated mine on holm oak at Eastham Country Park on 19th March (PH).

15.022 Callisto denticulella (Thunberg, 1794)

One adult was attracted to a lure for *Lampronia capitella* at Kent Close, Bromborough overnight on 4th June. A mine, on apple, at Carleton Road, Higher Poynton on 1st September (SHH) and another, also on apple, at Hightree Drive, Henbury on 3rd September (TW).

15.025 *Parornix betulae* (Stainton, 1854) One male at Linley Lane, Alsager on 31st May (MD). Determined by genitalia examination.

15.030 *Parornix scoticella* (Stainton, 1850) Numerous mines on rowan in Long Highlees Wood, Over Alderley on 16th September (SHH).

15.046 *Phyllonorycter blancardella* (Fabricius, 1781) Fifty mines on crab apple at Common Lane, Waverton on 19th October (H&BC). Adult determined by examination of genitalia.

15.050 *Phyllonorycter cerasicolella* (Herrich-Schäffer, 1855) Mines on cherry at Dukinfield on 8th November (SHH) and also on cherry at Kenworthy, near the Fairy Lane sub-station, on 22nd November (BS).

15.054 *Phyllonorycter viminiella* (Sircom, 1848) One at Midgley Lane, Wildboarclough on 8th September (A&JB). Determined by examination of genitalia.

15.060 *Phyllonorycter ulicicolella* (Stainton, 1851) A mine on gorse at Prince's Wood, Poynton on 13th January (SHH). Another mine, also on gorse, at Eastham Country Park on 19th March 2021 (PH).

15.065 *Phyllonorycter esperella* (Goeze, 1783) One tapped from hornbeam at Whaley Bridge on 25th April (AS) and mines, also on hornbeam, at Dukinfield on 8th November (SHH).

15.067 *Phyllonorycter rajella* (Linnaeus, 1758) Mines on alder in Long Highlees Wood, Over Alderley on 16th September (SHH) and, also on alder, at Hooton on 27th October (HJ)

15.073 *Phyllonorycter lautella* (Zeller, 1846) A mine on oak sapling at Carleton Road, Higher Poynton on 4th August (SHH).

15.076 *Phyllonorycter emberizaepenella* (Bouché, 1834) A mine at Deansfield Way, Elton on 5th October (MB, SWH), several more on snowberry at Willaston, Wirral on 23rd October and at Ellesmere Port on 3rd November (HJ).

15.080 *Phyllonorycter froelichiella* (Zeller, 1839) Mines on alder at Long Highlees Wood, Over Alderley on 16th September (SHH).

15.082 *Phyllonorycter klemannella* (Fabricius, 1781) Mines on alder in Long Highlees Wood, Over Alderley on 16th September (SHH).

15.083 *Phyllonorycter trifasciella* (Haworth, 1828) One at Carleton Road, Higher Poynton on 9th June and another at the same site on 18th September (SHH).

15.084 *Phyllonorycter acerifoliella* (Zeller, 1839) Mines, on field maple, at Willaston, Wirral on 23rd October and at Hooton on 27th October (HJ).



15.0931 *Phyllocnistis citrella* Stainton, 1856 Mine (vacated) on leaf of clementine bought in supermarket at Birkenhead on 28th February (PH). A new species for Cheshire.

Paul Hopkins

16.002 *Yponomeuta padella* (Linnaeus, 1758) Twenty-five larvae in a web on hawthorn at Burton Mere Wetlands RSPB (East) on 25th August (GJ).

16.003 *Yponomeuta malinellus* (Zeller, 1838) Nine larvae in a web on apple at Badger Bait, Little Neston on 15th August (GJ).

16.004 *Yponomeuta cagnagella* (Hübner, [1813]) Two hundred at Frodsham Marsh on 16th May (RW).



16.024 Ocnerostoma friesei (Svensson, 1966) One (male) at Carleton Road, Higher Poynton on 30th March (SHH) and another (male) at Linley Lane, Alsager on 26th July (MD). Both were determined by examination of the genitalia.

Steve Hind

17.002 *Ypsolopha nemorella* (Linnaeus, 1758) One at Carleton Road, Higher Poynton on 25th July and another at the same site on 14th August (SHH).

19.001 *Orthotelia sparganella* (Thunberg, 1788) One at Carleton Road, Higher Poynton on 23rd July (SHH) and one at Verdin Close, Moulton on 7th August (PB).

19.003 *Glyphipterix fuscoviridella* (Haworth, 1828) One at Weston on 3rd June (DGG).

19.005 *Glyphipterix haworthana* (Stephens, 1834) One at Wybunbury Moss on 22nd April (AML).

20.006 *Argyresthia dilectella* Zeller, 1847 One at Hightree Drive, Henbury on 13th July (TW), determined by examination of the genitalia.

20.014 *Argyresthia sorbiella* (Treitschke, 1833) One at Linley Lane, Alsager on 21st June (MD). 20.015 *Argyresthia curvella* (Linnaeus, 1761) One at Dane Road, Sale on 13th June (JPS).

20.024 Argyresthia semitestacella (Curtis, 1833)

One at Linley Lane, Alsager on 1st September and another at the same site on 18th September (MD).

27.001 Oegoconia quadripuncta (Haworth, 1828)

One (male) at Linley Lane, Alsager on 27th June (MD) and one at Kent Close, Bromborough on 21st July (PH). Both were determined by examination of the genitalia.



28.008 *Metalampra italica* (Baldizzone, 1977) One at Marbury Country Park on 17th July (DB), one at Haslington on 9th August (JPB), and one at Kingsley on 8th September (PM).

Paul Miller

29.002 *Diurnea lipsiella* ([Denis & Schiffermüller], 1775) One at Midgley Lane, Wildboarclough on 13th October (A&JB).



Alison & Julian Borrow



32.029 *Agonopterix umbellana* (Fabricius, 1794) One at Midgley Lane, Wildboarclough on 26th October (A&JB).

Alison & Julian Borrow

32.035 *Agonopterix yeatiana* (Fabricius, 1781) One at Pembroke Close, Handbridge on 1st August (KP) and another, confirmed by examination of the genitalia, at Burton Mere Wetlands RSPB (East) on 11th September (GJ).

32.040 *Depressaria ultimella* (Stainton, 1849) One at Kent Close, Bromborough on 23rd April (PH), confirmed by examination of the genitalia.

32.043 *Depressaria sordidatella* (Tengström, 1848) One at Highfield Road, Hazel Grove on 30th August (JWR), confirmed by examination of the genitalia. Only the second record of this species for Cheshire.



35.0191 *Anarsia innoxiella* (Gregersen & Karsholt, 2017) One at Badger Bait, Little Neston on 4th August (GJ). A new species for Cheshire, it was only recognised as a separate species from *Anarsia lineatella* in 2017.

Graham Jones

35.020 Anarsia spartiella (Schrank, 1802) One at Meadowside, Burwardsley on 22nd July (MRW), confirmed by examination of the genitalia.

35.056 *Metzneria lappella* (Linnaeus, 1758) One at Deansfield Way, Elton on 4th July (MB, SWH). 35.065 *Monochroa cytisella* (Curtis, 1837) One at Midgley Lane, Wildboarclough on 21st July and another at the same site two days later (A&JB).



Alison & Julian Borrow

35.093 Mirificarma mulinella (Zeller, 1839)

Two at Meadowside, Burwardsley on 27th July (MRW), confirmed by examination of genitalia, as was one at Heath Lane Allotment, Little Sutton on 13th August and another there again on 2nd September (HJ).

35.107 Psoricoptera gibbosella (Zeller, 1839)

One at Carleton Road, Higher Poynton on 4th August (SHH) and one (male, determined by examination of the genitalia) at Linley Lane, Alsager on 20th August (MD).

35.109 *Scrobipalpa acuminatella* (Sircom, 1850) A mine On thistle at Willaston, Wirral on 5th November (HJ).

35.147 *Carpatolechia decorella* (Haworth, 1812) One at Kent Close, Bromborough on 30th March, determined by examination of the genitalia, and another at the same site on 30th December (PH). Also, one at Knowle Close, Great Sutton on 16th July (MBe).



Mel Bellingham



35.151 *Carpatolechia proximella* (Hübner, 1796) One at Midgley Lane, Wildboarclough on 13th June and another at the same site five days later (A&JB).

Alison & Julian Borrow

35.157 Recurvaria leucatella (Clerck, 1759)

Two at Chester Zoo Nature Reserve on 19th July (MB, IC, SD, ED, SWH, PH) and one at Newton Lane, Tattenhall on 24th July (KH).

37.014 Coleophora coracipennella (Hübner, 1796)

One at Common Lane, Waverton on 8th July (H&BC) and one at Brookledge Lane, Adlington on 9th July (SHH), both determined by examination of the genitalia.

37.016 Coleophora spinella (Schrank, 1802)

Two larvae at Common Lane, Waverton on 9th May. The adult emerged on 10th June and was determined by examination of the genitalia, as was another from the same site on 14th July (H&BC).

37.022 *Coleophora lusciniaepennella* (Treitschke, 1833) One (female) at Linley Lane, Alsager on 29th June (MD), determined by examination of the genitalia.

37.029 *Coleophora orbitella* (Zeller, 1849) One at Linley Lane, Alsager on 22nd June (MD), determined by examination of the genitalia.

37.035 *Coleophora alcyonipennella* (Kollar, 1832)

One at Carleton Road, Higher Poynton on 22nd July (SHH), determined by examination of the genitalia. The third record for Cheshire.

37.044 *Coleophora discordella* (Zeller, 1849) Larvae seen on bird's-foot trefoil at Macclesfield Road, Whaley Bridge on 25th June and three adults at the same site on 22nd August (AS).



Angie Seymour

37.046 Coleophora deauratella (Lienig & Zeller, 1846)

One at Highfield Road, Hazel Grove on 29th June (JWR), determined by examination of the genitalia.

37.050 *Coleophora albidella* ([Denis & Schiffermüller], 1775) One at Heath Lane Allotment, Little Sutton on 27th June (HJ) and one at Meadowside, Burwardsley on 30th June (MRW), both determined by examination of the genitalia.

37.066 Coleophora laricella (Hübner, [1817])

One (male) at Linley Lane, Alsager on 7th June and another two (one male) at the same site on 13th June (MD), determined by examination of the genitalia.

37.071 *Coleophora glaucicolella* (Wood, 1892)

One at Carleton Road, Higher Poynton on 2nd July, another at Brookledge Lane, Adlington on 9th July (SHH) and one (male) at Linley Lane, Alsager on 15th July (MD), all determined by examination of the genitalia.

37.072 Coleophora otidipennella (Hübner, [1817])

One flushed from foodplant at Carleton Road, Higher Poynton on 23rd May and another from the same site three days later (SHH).

37.073 Coleophora alticolella (Zeller, 1849)

One at Hightree Drive, Henbury on 13th June (TW), determined by examination of the genitalia.

37.083 *Coleophora saxicolella* (Duponchel, [1843]) One at Heath Lane Allotment, Little Sutton on 25th July (HJ), determined by examination of the genitalia.

37.093 *Coleophora peribenanderi* (Toll, 1943) One at Carleton Road, Higher Poynton on 2nd July (SHH), determined by examination of the genitalia. Larval tubes on thistle at Meols on 22nd September and cases on thistle at Moreton on 15th October (HJ).

37.099 *Coleophora striatipennella* (Nylander [1848]) One at Meadowside, Burwardsley on 30th June (MRW), determined by examination of the genitalia.

38.028 *Elachista alpinella* (Stainton, 1854) One at Carleton Road, Higher Poynton on 23rd July (SHH), determined by examination of the genitalia.

38.029 *Elachista luticomella* (Zeller, 1839) A tenanted mine on cock's-foot at Brushes Valley on 30th March (BS).

40.001 *Mompha conturbatella* (Hübner, [1819]) One at Crag Hall Lane, Wildboarclough on 3rd July (A&JB).



Alison & Julian Borrow

40.009 *Mompha sturnipennella* (Treitschke, 1833) One at Deansfield Way, Elton on 21st June (MB, SWH).



40.011 *Mompha langiella* (Hübner, 1796) Two (in garage) at Carleton Road, Higher Poynton on 28th May (SHH), one at Kent Close, Bromborough on 31st August (PH) and another at Dane Road, Sale on 6th October (JPS).

Paul Hopkins

42.002 *Stathmopoda pedella* (Linnaeus, 1761) One at Shannon Close, Willaston, Nantwich on 17th July (DT).

45.013 *Stenoptilia bipunctidactyla* (Scopoli, 1763) One at Highfield Road, Ellesmere Port on 3rd August (PMo). 45.028 *Capperia britanniodactylus* (Gregson, 1869) One at Midgley Lane, Wildboarclough on 15th July (A&JB, JO). Wood Sage was growing nearby. This is the first record for Wood Sage Plume in Cheshire since 1968, one of only ten for the county.



Alison & Julian Borrow

46.001 *Schreckensteinia festaliella* (Hübner, [1819]) One at Dawlish Road, Wallasey on 28th May (CS).

49.005 *Epagoge grotiana* (Fabricius, 1781) One at Carden Park on 1st July (MRW).

49.020 *Argyrotaenia ljungiana* (Thunberg, 1797) One at Carleton Road, Higher Poynton on 10th September (SHH), determined by examination of the genitalia. Presumably a late second generation moth.

49.021 *Ptycholomoides aeriferana* (Herrich-Schäffer, 1851) One at Carleton Road, Higher Poynton on 17th July (SHH).

49.022 *Ptycholoma lecheana* (Linnaeus, 1758) One at Heath Lane Allotment, Little Sutton on 13th June (HJ).

49.023 *Pandemis cinnamomeana* (Treitschke, 1830) One at Cedarways, Appleton Park, Warrington on 18th July (CW) and one at Meadowside, Burwardsley on 8th September (MRW).



Mike Whiteside

49.030 *Cacoecimorpha pronubana* (Hübner, [1799]) One at Meadowside, Burwardsley on 9th July (MRW), one at Cedarways, Appleton Park, Warrington on 22nd July (CW) and one at Church Way, Wybunbury on 6th September (AML).

49.033 *Aphelia viburnana* ([Denis & Schiffermüller], 1775) A larva in spinning on bilberry at Brushes Valley on 28th February (BS).

49.049 Cnephasia incertana (Treitschke, 1835)

One (male) at Linley Lane, Alsager on 12th June and another (male) at the same site on 2nd July (MD), both determined by examination of the genitalia.

49.050 Cnephasia stephensiana (Doubleday, [1849])

One at Linley Lane, Alsager on 16th July and another (female) at the same site on 21st July (MD). Also, one at Knowle Close, Great Sutton on 20th July (MBe). All were determined by examination of the genitalia.

49.063 *Acleris bergmanniana* (Linnaeus, 1758) One at West Kirby Sand Dunes on 20th June (HD) and one at Linley Lane, Alsager on 2nd July (MD).



Harry Davies

49.082 Acleris hyemana (Haworth, 1811)

One (an odd variant with no white scales) at Thornton Avenue, Higher Bebington on 7th October and another, more typical specimen, at the same site four days later (CD).





Clive Donaldson

49.090 *Eulia ministrana* (Linnaeus, 1758) One at Bickerton/Larkton Hill on 16th May (MKB) and one at Back Lane, Shavington on 2nd June (RB).



Maile Keagle Belanger

49.096 *Hysterophora maculosana* (Haworth, 1811) One on bluebells in a grassy clearing at Hillbridge Wood, Taxal on 4th June (JEH).

49.111 *Eupoecilia angustana* (Hübner, [1799]) One at Woodlands Drive, Chester on 26th June (AN), one at Cedarways, Appleton Park, Warrington on the following day (CW) and two at Thurstaston Common on 27th July (CD).

49.123 Aethes beatricella (Walsingham, 1898)

One at Gowy Meadows CWT on 18th June (SWH), one at Woodlands Drive, Chester on 25th June (AN) and one at Woodlands Drive, Chester on 2nd July (AN).

49.134 *Cochylis roseana* (Haworth, 1811) One at Dane Road, Sale on 26th July (JPS). Only the third Cheshire record since the nineteenth century.



John P Shaughnessy

49.153 *Apotomis sauciana* (Frölich, 1828) One at Midgley Lane, Wildboarclough on 11th August (A&JB).



Alison & Julian Borrow

49.155 Hedya salicella (Linnaeus, 1758)

One at Highfield Road, Ellesmere Port on 14th June (PMo), one at Common Lane, Waverton on 8th July (H&BC) and another at Burton Mere Wetlands RSPB (East) on 25th September (GJ).

49.178 *Stictea mygindiana* ([Denis & Schiffermüller], 1775) A larva in cowberry spinning at Brushes Valley on 30th March (BS).

49.180 *Piniphila bifasciana* (Haworth, 1811) One at Brookledge Lane, Adlington on 9th July (SHH) and one at Sudworth Road, New Brighton on 19th July (TWa), taking the total number of Cheshire records to twenty



Tricia Wain



Steve Hind

49.185 *Lobesia littoralis* (Westwood & Humphreys, 1845) One at Common Lane, Waverton on 12th June, one at the same site on 14th July and three, again at the same site, on 22nd August (H&BC).

49.186 *Endothenia gentianaeana* (Hübner, [1799]) Five larvae, with no anal combs, in teasel heads at Sale on 17th January (BS). 49.193 *Endothenia quadrimaculana* (Haworth, 1811) One at Linley Lane, Alsager on 9th July (MD).

49.211 *Ancylis myrtillana* (Treitschke, 1830) Two at Midgley Lane, Wildboarclough on 28th May (A&JB).

49.238 *Epinotia cruciana* (Linnaeus, 1761) One at Wellington Close, Ellesmere Port on 21st July (HJ) and another at the same site on the following day (HJ).

49.242 *Epinotia nanana* (Treitschke, 1835) One at Carleton Road, Higher Poynton on 2nd July (SHH), determined by examination of the genitalia.

49.244 *Epinotia subocellana* (Donovan, 1806) One at Carleton Road, Higher Poynton on 13th June (SHH).

49.245 *Epinotia tetraquetrana* (Haworth, 1811) At the same site - Linley Lane, Alsager - on 31st May, on 5th June and on 8th June (MD).

49.251 *Epinotia rubiginosana* (Herrich-Schäffer, 1851) Also at the same site - Linley Lane, Alsager - on 2nd June, on 11th June and on 15th June (MD).

49.252 *Epinotia tedella* (Clerck, 1759) One at Carleton Road, Higher Poynton on 10th June (SHH).

49.264 *Eucosma obumbratana* (Lienig & Zeller, 1846) Two at Aldford on 25th July (AE).

49.272 *Eucosma tripoliana* (Barrett, 1880) One at Burton Mere Wetlands RSPB (West) on 17th July (GJ) and three at Bendee Road, Little Neston on 21st July (SK).

49.281 *Gypsonoma sociana* (Haworth, 1811) One at Graham Road, Blacon on 16th June (DD).

49.284 *Epiblema sticticana* (Fabricius, 1794) Three at Stockport on 1st June and another nearby on 22nd June, all on coltsfoot (SHH) and one at Burton Mere Wetlands RSPB (East) on 27th June (HD).



Harry Davies



49.285 *Epiblema scutulana* ([Denis & Schiffermüller], 1775) One on marsh thistle at Timbersbrook on 30th May (JHS) and one at Midgley Lane, Wildboarclough on 5th June (A&JB).

Jack H Swan

49.296 *Notocelia incarnatana* (Hübner, [1800]) One at Thornton Avenue, Higher Bebington on 9th July and another at the same site on 16th July (CD). Also one at Sudworth Road, New Brighton on 14th July 2021 (TWa).

49.311 *Dichrorampha aeratana* (Pierce & Metcalfe, 1915) One of several flying among Ox-eye Daisy by Portwood roundabout on 1st June (SHH), determined by examination of the genitalia.

49.315 *Dichrorampha simpliciana* (Haworth, 1811) One at Heath Lane allotment, Little Sutton on 11th August (HJ), determined by examination of the genitalia.

49.319 *Dichrorampha flavidorsana* (Knaggs, 1867) On tansy flowers at the same site - Carleton Road, Higher Poynton - on 7th July, and on 19th and 20th August (SHH).

49.320 *Dichrorampha alpinana* (Treitschke, 1830) Two, close to ox-eye daisy, at Macclesfield Road, Whaley Bridge on 1st July, and another on ox-eye daisy, at the same site a day later (AS).



Angie Seymour

49.321 *Dichrorampha petiverella* (Linnaeus, 1758) One at Gladstone Road, Chester on 27th June (AMo).



49.324 Cydia nigricana (Fabricius, 1794)

A larva in a pea pod in the garden at Foxfield Lane, Winsford on 23rd July, then another four at the same site three days later (AH). Also, one at Deansfield Way, Elton on 2nd August (MB, SWH).

Alida Heston

49.330 *Cydia conicolana* (Heylaerts, 1874) One at Knowle Close, Great Sutton on 10th June (MBe), determined by examination of the genitalia. A new species for Cheshire.



Mel Bellingham

49.334 *Cydia cosmophorana* (Treitschke, 1835) One at Carleton Road, Higher Poynton on 9th June (SHH), determined by examination of the genitalia. The sixth record of this species in Cheshire.



Steve Hind

49.345 *Lathronympha strigana* (Fabricius, 1775) One at Linley Lane, Alsager on 29th August (MD)

49.347 *Grapholita compositella* (Fabricius, 1775) All at the same site - Macclesfield Road, Whaley Bridge - one on 16th June, one on 23rd June and one on 7th July (AS).

49.354 *Grapholita jungiella* (Clerck, 1759) One at Cheadle Heath on 22nd April (DH-T) and another, on the same day, at Dane-in-Shaw pasture (JHS). Also, one at Winsfield Road, Hazel Grove on 15th June (PJH).



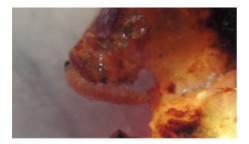
Jack H Swan

49.356 Grapholita lobarzewskii (Nowicki, 1860)

One, to an SKI lure, at Kent Close, Bromborough on 26th June (PH) and another, on the inside of a garage window, where apples had been stored at Carleton Road, Higher Poynton on 1st July (SHH), determined by examination of the genitalia. The only previous Cheshire record is at Willaston, Nantwich, in 2018.

49.357 Grapholita funebrana (Treitschke, 1835)

One at Shannon Close, Willaston, Nantwich on 14th July (DT) and one at Carleton Road, Higher Poynton on 22nd July (SHH), both determined by examination of the genitalia. Also, pink larvae in every ripe plum picked from a small plum tree at Randle Bennett Close, Elworth on 19th August 2021 (PFA), taking the total number of Cheshire records to 22.



Pete Atherton

49.363 *Pammene argyrana* (Hübner, [1799]) One, to a pheromone lure for *Grapholita lobarzewskii* at Kent Close, Bromborough on 20th April (PH), determined by examination of the genitalia. Also, one at Common Lane, Waverton on 26th April (H&BC)



49.364 Pammene suspectana (Lienig & Zeller, 1846)

One, attracted to a pheromone lure for *Grapholita molesta*, at Kent Close, Bromborough on 27th May (PH), determined by examination of the genitalia. A new species for Cheshire.

49.373 Pammene spiniana (Duponchel, [1843])

A larva at Waverton Gorse on 15th April (H&BC). The adult emerged on 21st June and was determined by examination of the genitalia. It was only the fourth Cheshire record.

52.008 Red-tipped Clearwing Synanthedon

formicaeformis (Esper, 1782) One at Park Farm, Pulford on 6th June (JW), and one, attracted to the FOR lure, near the River Dee at Aldford on 13th June (GJ). There are only three previous Cheshire records - and one of those was arguably in VC59!



Jon Wainwright

S2.0 vesp One on 9 reco

52.012 **Yellow-legged Clearwing** *Synanthedon vespiformis* (Linnaeus, 1761) One, to the VES lure, at Kent Close, Bromborough on 9th July (PH). There are six previous Cheshire records.

Paul Hopkins

62.024 *Rhodophaea formosa* (Haworth, 1811) One at Shannon Close, Willaston, Nantwich on 11th July (DT). The third Cheshire record.



David Taylor

62.025 *Dioryctria sylvestrella* (Ratzeburg, 1840) One at Cedarways, Appleton Park, Warrington on 17th September (CW), determined by examination of the genitalia. The two previous Cheshire records were at Alsager.

62.027 *Dioryctria simplicella* (Heinemann, 1863)

One at Badger Bait, Little Neston on 10th September (GJ), determined by examination of the genitalia. The fifth Cheshire record.

62.038 *Acrobasis consociella* (Hübner, [1813]) One at Linley Lane, Alsager on 13th July and another at the same site on 19th July (MD).

62.059 Phycitodes saxicola (Vaughan, 1870)

One at Knowle Close, Great Sutton on 11th July (MBe) and one at Badger Bait, Little Neston on 2nd September (GJ). Both determined by examination of the genitalia.

62.062 *Plodia interpunctella* (Hübner, [1813]) One on the pantry door in the kitchen at Gatley on 2nd April (CH).

62.074 Large Tabby *Aglossa pinguinalis* (Linnaeus, 1758) One at Chester Zoo on 9th May and another there on 23rd August (PR). Also, one at Wistaston on 24th July(JL).



Julie Lightfoot



62.077 *Endotricha flammealis* ([Denis & Schiffermüller], 1775) One at Woodlands Drive, Chester on 23rd July (AN). This is only the second record of the species in Cheshire, the first being at Carrington Moss in 1922.

Alex Neal

63.007 *Pyrausta purpuralis* (Linnaeus, 1758) One at Midgley Lane, Wildboarclough on 18th July (A&JB, JO), two or more found on apple mint during the day at Highfield Road, Ellesmere Port on 28th July (PMo) and one at Holly Court, Helsby on 12th August (MJ&GO).

Mandy Jervis & Glyn Owen

63.014 *Sitochroa palealis* ([Denis & Schiffermüller], 1775) One seen resting on thistle on the Sea Defence path, near the cafe and car park, at Moreton on 24th July (JK). This was the fourth record of this species in Cheshire; the first was also at Moreton, in 2018.



Jason King

63.016 *Anania fuscalis* ([Denis & Schiffermüller], 1775) One at St Georges Avenue, Timperley on 24th July (SB). The sixteenth Cheshire record, and only the fifth since 1955.



Steven Bell

63.017 Anania lancealis ([Denis & Schiffermüller], 1775) Two at Burton Mere Wetlands RSPB (East) on 8th July and another at the same site on 21st July (GJ).

63.021 *Anania terrealis* (Treitschke, 1829) One at Dane Road, Sale on 21st July (JPS).

63.046 *Duponchelia fovealis* (Zeller, 1847) One at Willaston, Wirral on 25th October (SA). [Correction to last year's report: the specimen was found at Poynton, not - as originally stated - at Bollin Valley, Prestbury].



Shane Atkinson

63.060 *Evergestis pallidata* (Hufnagel, 1767) One at Linley Lane, Alsager on 16th July (MD), one at Aston Lane, Aston on 19th July (PQ) and another at Aldford on 25th July (AE).

63.062 *Scoparia subfusca* Haworth, 1811 Two at Nursery Road, Alsager on 3rd August (MHD).

63.091 *Agriphila latistria* (Haworth, 1811) One at Dane Road, Sale on 20th August (JPS).

63.099 *Catoptria pinella* (Linnaeus, 1758) One at Dawlish Road, Wallasey on 2nd August (CS).

63.117 *Parapoynx stratiotata* (Linnaeus, 1758) One at Coole Fishery, near Audlem on 14th June (PG) and one at Burton Mere Wetlands RSPB (East) on 21st July (GJ).

63.120 *Schoenobius gigantella* ([Denis & Schiffermüller], 1775) Two, with wing-span 38mm, at Chester Zoo Nature Reserve on 19th July (MB, IC, SD, ED, SWH, PH). This is only the second record of the species in Cheshire, the first being in 2020 at Higher Poynton. 66.008 **Fox Moth** *Macrothylacia rubi* (Linnaeus, 1758) One at Midgley Lane, Wildboarclough on 28th May (A&JB).

69.007 **Pine Hawk-moth** *Sphinx pinastri* Linnaeus, 1758 One at Midgley Lane, Wildboarclough on 2nd July (A&JB) and one at Acre Lane, Cheadle Hulme on 21st July (DBo). There are only seven previous Cheshire records.



Dave Booth

70.002 **Purple-bordered Gold** *Idaea muricata* (Hufnagel, 1767) Six at Wybunbury on 2nd July (RB).

70.023 **Mullein Wave** *Scopula marginepunctata* (Goeze, 1781)

One at Wistaston on 24th August (JL). All but one of the previous twelve Cheshire records are from this century.



Julie Lightfoot



70.027 **Cream Wave** Scopula floslactata (Haworth, 1809) One at Tirley Garth on 2nd June (SR) and one at Marbury Country Park on 21st July (DJ).

Steve Richardson

70.037 **Clay Triple-lines** *Cyclophora linearia* (Hübner, [1799]) One at Kent Close, Bromborough on 15th June (PH) and another at the same site on 31st July (PH).

70.038 **Vestal** *Rhodometra sacraria* (Linnaeus, 1767) One at Burton Mere Wetlands RSPB (East) on 11th September (GJ).



Graham Jones



70.041 **July Belle** *Scotopteryx luridata* (Hufnagel, 1767) One at Midgley Lane, Wildboarclough on 13th June (A&JB), determined by examination of the genitalia. There are

only eighteen previous Cheshire records.

Alison & Julian Borrow

70.046 **Oblique Carpet** Orthonama vittata (Borkhausen, 1794) Two at Burton Mere Wetlands RSPB (East) on 10th June (GJ), one at Boughton Heath allotments on 11th June (CJ), one at Midgley Lane, Wildboarclough on 31st July (A&JB) and one at Back Lane, Shavington on 24th August (RB).

Clive Jones





70.047 **Gem** *Nycterosea obstipata* (Fabricius, 1794) One at Burton Mere Wetlands RSPB (East) on 11th September (GJ).

Graham Jones

70.048 **Red Carpet** *Xanthorhoe decoloraria* (Esper, [1806]) One at Midgley Lane, Wildboarclough on 18th July (A&JB, JO). The twenty-first record for Cheshire.

70.051 **Red Twin-spot Carpet** *Xanthorhoe spadicearia* ([Denis & Schiffermüller], 1775) One at Heath Lane allotment, Little Sutton on 30th August (HJ).

70.068 **Beautiful Carpet** *Mesoleuca albicillata* (Linnaeus, 1758) One at Marbury Country Park on 19th June and another at the same site on 19th July (DJ).



David Bedford



70.069 Dark Spinach *Pelurga comitata* (Linnaeus, 1758)One at Kingsley on 18th July (PM).

Paul Miller

70.070 **Mallow** Larentia clavaria (Haworth, 1809) One at Newton Lane, Tattenhall on 25th September (KH).



Kate Hughes

70.108 **Pale November Moth** *Epirrita christyi* (Allen, 1906) One at Burton Mere Wetlands RSPB (East) on 26th October (GJ), determined by examination of the genitalia. Of four previous Cheshire records, two were also at the RSPB site.

70.109 Autumnal Moth *Epirrita autumnata* (Borkhausen, 1794) One (male) at Linley Lane, Alsager on 15th October (MD), determined by examination of the genitalia.

70.115 **Welsh Wave** *Venusia cambrica* (Curtis, 1839) One at Kennel Wood, Lyme Park on 18th July (AHa) and one at the same site on 26th July (JD).



Nigel Earp

70.119 **Dark Umber** *Philereme transversata* (Hufnagel, 1767) One at Goyt Road, Disley on 25th July (AB, DBi). There are only five previous Cheshire records.



Andy Bissitt

70.121 Scallop Shell Rheumaptera undulata (Linnaeus, 1758)

One at Farr Hall Drive, Heswall on 28th June (JJ), one at Meadowside, Burwardsley on 7th July (MRW), one at Badger Bait, Little Neston on 10th July (GJ), one at Pikelow Farm, Marton - Wildflower Meadow on 16th July (PMH) and one at Woodlands Drive, Chester on 21st July (AN).

70.123 Tissue Triphosa dubitata (Linnaeus, 1758)

Three at Queens Parlour Cave, Raw Head on 27th January (MRW) and one hibernating- the resting position suggesting a moribund individual - at the same site on 2nd December (CJ).



70.131 **Twin-spot Carpet** *Mesotype didymata* (Linnaeus, 1758) One at Midgley Lane, Wildboarclough on 31st July and one at the same site on 13th August (A&JB).

Alison & Julian Borrow

70.143 **Sloe Pug** *Pasiphila chloerata* (Mabille, 1870)

One at Brookledge Lane, Adlington on 9th July (SHH), determined by examination of the genitalia.



70.146 **Haworth's Pug** *Eupithecia haworthiata* Doubleday, 1856

One at Woodlands Drive, Chester on 30th June (AN) and one at Hartford Road, Davenham on 23rd July (GO). Only three - all from Burwardsley - of the previous fifteen Cheshire records are from this century.

Greg Osborn



Roger Wilkinson



70.159 **Cypress Pug** *Eupithecia phoeniceata* (Rambur, 1834)

One at Verdin Close, Moulton on 29th August (PB) and another at the same site the next day. (Possibly the same moth, even though it had been released a fair distance away). One at Weston Grove, Upton, Chester on 9th September (RW) and one at Wharton on 17th September (JLa). There are only two previous Cheshire records, from Elton in 2019 and from Bromborough in 2020.

70.162 **Dwarf Pug** *Eupithecia tantillaria* (Boisduval, 1840)

One at Coppice Avenue, Disley on 31st May (NE), one at Linley Lane, Alsager on the same day and another, at the same site, on 15th July (MD). One at Thornton Common Road, Thornton Hough on 12th June (PS) and one at Hightree Drive, Henbury on 13th June (TW).

Nigel Earp

70.163 Larch Pug Eupithecia lariciata (Freyer, 1841)

One (male) at Linley Lane, Alsager on 15th July (MD), determined by examination of the genitalia.

70.164 **Pauper Pug** *Eupithecia egenaria* (Herrich-Schäffer, 1848) One at Linley Lane, Alsager on 29th May (MD). Of four previous Cheshire records, three are also from Alsager.

70.166 **Plain Pug** *Eupithecia simpliciata* (Haworth, 1809) One at Linley Lane, Alsager on 1st August (MD).



70.177 **Satyr Pug** *Eupithecia satyrata* (Hübner, [1813]) Two at Church Way, Wybunbury; one on 16th June and another on 29th June (AML).

Angela Lidgett

70.188 **Bordered Pug** *Eupithecia succenturiata* (Linnaeus, 1758) Two at Graham Road, Blacon; one on 21st July and another on 22nd August (DD). Also, one at Cross Hey, Handbridge on 22nd July (AI).

Andy Ingham

70.191 **Manchester Treble-bar** *Carsia sororiata* (Hübner, [1813]) One at Wybunbury on 2nd July (RB).



Roger Benson

70.195 **Streak** *Chesias legatella* ([Denis & Schiffermüller], 1775) Two at Burton Mere Wetlands RSPB (West) on 11th October (GJ), one at Linley Lane, Alsager on 13th October and another at the same site on 15th October (MD).

70.223 **Barred Umber** *Plagodis pulveraria* (Linnaeus, 1758) One at Broomhall, Nantwich on 2nd June (PG). The first Cheshire record since 1993. Twelve of the previous seventeen records are from the 19th Century.

Paul Griffiths





70.288 **Brussels Lace** *Cleorodes lichenaria* (Hufnagel, 1767) One at Newton Lane, Tattenhall on 10th October (KH). This is the first record of this species in Cheshire since 1903.

Kate Hughes

70.295 **Grass Wave** *Perconia strigillaria* (Hübner, [1787]) Twenty at Abbots Moss on 16th June and six at the same site on 27th June (PB). Also, one at Shemmy Moss on 26th June (SR).



Paul Brewster

70.297 **Grass Emerald** *Pseudoterpna pruinata* (Hufnagel, 1767) One at Graham Road, Blacon on 9th July (DD).



Dean Davies

70.303 Little Emerald Jodis lactearia (Linnaeus, 1758)

One at Upton, Chester on 12th June (PR), one at Back Lane, Shavington on 13th June (RB) and one at Weston Grove, Upton, Chester on 14th June (RW). Also, one at Carleton Road, Higher Poynton on 26th June (SHH) and one at Chester Zoo Nature Reserve on 19th July (IC).

71.007 Poplar Kitten Furcula bifida (Brahm, 1787)

One at Holborn Hill, Tranmere on 17th June (DTr) and one at Pembroke Close, Handbridge on 24th June (KP). Also, one at Wistaston on 2nd August and another at the same site the next day (JL), and one at Tencherfield, Nantwich on 9th August (MH).



71.010 Marbled Brown Drymonia dodonaea ([Denis &

Schiffermüller], 1775) One at Meadowside, Burwardsley on 29th May (MRW) and one at Arden House, Duckington on 30th May (FMcC). Three of the six previous Cheshire records were also at Burwardsley.

Fraser McConnell

72.007 Beautiful Snout Hypena crassalis (Fabricius, 1787)

One at Willocks Wood on 10th June (AMR), and one at Linley Lane, Alsager on 28th June (MD). One at Midgley Lane, Wildboarclough on 30th June and another at the same site on 9th July (A&JB). Also, one at Kennel Wood, Lyme Park on 18th July (AHa).

72.038 **Four-dotted Footman** *Cybosia mesomella* (Linnaeus, 1758) Two at Abbots Moss on 17th July (PB).



Paul Brewster





72.076 **Clifden Nonpareil** *Catocala fraxini* (Linnaeus, 1758) One at Kingsley on 24th September (PM). The first Cheshire record this century. The nine previous records stretch from 1997 back to 1846.

Paul Miller

73.014 **Golden Plusia** *Polychrysia moneta* (Fabricius, 1787) One at Church Walks, Christleton on 19th July (CJ) and one at Macclesfield Road, Whaley Bridge on 24th September (AS). Four, bred from garden larvae, at Ashworth Close, Bowdon, Altrincham (RH).



Clive Jones



73.042 Light Knot Grass Acronicta menyanthidis (Esper, 1798)One at Manor Crescent, Tytherington on 9th June (DJM).

Jeanette & Dave Maddy

73.047 Coronet Craniophora ligustri ([Denis & Schiffermüller], 1775)

One at Hartford Road, Davenham on 14th July (GO), one (f. coronula) at Church Walks, Christleton on 19th July (CJ) and another (f. coronula) at Graham Road, Blacon on 22nd July (DD). The record at Burton Mere Wetlands in 2017 is the only other one for this species in Cheshire since 1885.



Clive Jones

Greg Osborn

Dean Davies

73.048 **Small Yellow Underwing** *Panemeria tenebrata* (Scopoli, 1763) One at Swettenham Meadows on 27th May and one at Astbury Mere on 8th June (both JHS). Also, two at Burton Mere Wetlands RSPB (West) on 22nd June (GJ).



73.053 **Chamomile Shark** *Cucullia chamomillae* ([Denis & Schiffermüller], 1775) One at Upton Road, Moreton on 31st March (GC).

Graham Connolly

73.118 Haworth's Minor Celaena haworthii (Curtis, 1829)

One at Macclesfield Road, Whaley Bridge on 3rd September (AS) and one at Broadbottom Road, Mottram on 8th September (BU).



Angie Seymour

Bill Underwood

73.126 Saltern Ear Amphipoea fucosa (Freyer, 1830)

One at Badger Bait, Little Neston on 4th August, two at the same site on 10th August and another on 23rd August. Fourteen (six males) at Burton Mere Wetlands RSPB (East) on 12th August and another five at the same site on 25th August. (GJ), determined by examination of the genitalia.

73.127 Large Ear Amphipoea lucens (Freyer, 1845)

One (male) at Linley Lane, Alsager on 9th August (MD) and one at Burton Mere Wetlands RSPB (East) on 25th August (GJ), both determined by examination of the genitalia.

73.128 Ear Moth *Amphipoea oculea* (Linnaeus, 1761)

One at Meadowside, Burwardsley on 24th July (MRW), one (male) at Linley Lane, Alsager on 6th August (MD) and one at Badger Bait, Little Neston on 21st August (GJ), all determined by examination of the genitalia.

73.141 Brown-veined Wainscot Archanara dissoluta (Treitschke, 1825)

One at Burton Mere Wetlands RSPB (East) on 10th June (GJ) and one at Chester Zoo Nature Reserve on 12th August (SD).



73.151 **Webb's Wainscot** *Globia sparganii* (Esper, 1789) One at Verdin Close, Moulton on 11th September (PB). The third Cheshire record, after two in 2018.

Paul Brewster

73.155 **Clouded Brindle** *Apamea epomidion* (Haworth, 1809) One at Kent Close, Bromborough on 2nd July (PH), one at Brookdale Avenue, Marple on 8th July (SC), one at Carleton Road, Higher Poynton on 10th July (SHH) and one at Graham Road, Blacon on 14th July (DD).



Paul Hopkins

73.169 Common Rustic Mesapamea secalis (Linnaeus, 1758)

Two at Burton Mere Wetlands RSPB (East) on 8th July (GJ), one at Highfield Road, Hazel Grove on 15th July (JWR), one at Knowle Close, Great Sutton on 13th August (MBe) and one (male) at Linley Lane, Alsager on 21st August (MD). All determined by examination of the genitalia.

73.170 Lesser Common Rustic Mesapamea didyma (Esper, 1788)

One at Burton Mere Wetlands RSPB (East) on 8th July and another at the same site on 25th August (GJ). One at Knowle Close, Great Sutton on 2nd August and another at the same site on 4th August (MBe). All determined by examination of the genitalia.

73.173 Marbled Minor Oligia strigilis (Linnaeus, 1758)

One at Knowle Close, Great Sutton on 8th June (MBe), one at Highfield Road, Hazel Grove on 30th June and five (two males) at the same site on 13th July (JWR). Two at Burton Mere Wetlands RSPB (East) on 8th July (GJ) and one at Linley Lane, Alsager on 9th July (MD). All determined by examination of the genitalia.

73.174 **Tawny Marbled Minor** *Oligia latruncula* ([Denis & Schiffermüller], 1775) One at Knowle Close, Great Sutton on 31st May (MBe), two (males) at Linley Lane, Alsager on 1st July and another (male) at the same site on 5th July (MD). All determined by examination of the genitalia.



73.183 **Dusky-lemon Sallow** *Cirrhia gilvago* ([Denis & Schiffermüller], 1775) One at Linley Lane, Alsager on 15th September (MD), one at Meadowside, Burwardsley on 17th September (MRW) and one at Newton Lane, Tattenhall on 10th October (KH).

Kate Hughes



73.207 **Golden-rod Brindle** *Xylena solidaginis* (Hübner, [1803]) Three at Midgley Lane, Wildboarclough: on 13th August, on 20th August (A&JB) and again on 26th August (A&JB, JO).

Alison & Julian Borrow

73.211 Angle-striped Sallow Enargia paleacea (Esper, 1791)

One at Broadbottom Road, Mottram on 23rd August and again at the same site three days later (BU). Also, one at Highfield Road, Hazel Grove on 5th September (JWR). The five records of this species from the last two years now outnumber the four previous Cheshire records.



Bill Underwood

John Rayner



73.220 **Minor Shoulder-knot** *Brachylomia viminalis* (Fabricius, [1777]) One at Peckforton Hill on 13th July (MRW), one at Meadowside, Burwardsley on 21st July (MRW) and one at Allostock on 7th July (PMH).

Paul Hill

73.231 **Deep-brown Dart** *Aporophyla lutulenta* ([Denis & Schiffermüller], 1775)

One at Kingsley on 18th July(PM), one at Crewe on 29th August (Nigel Baskerville), one at Linley Lane, Alsager on 5th September (MD), one at Dawlish Road, Wallasey on 26th September (CS) and one at St John's Church, Winsford on 9th October (AH).

Nigel Baskerville



73.234 **Brindled Ochre** *Dasypolia templi* (Thunberg, 1792) One at Midgley Lane, Wildboarclough on 8th October (A&JB). A regular guest at the Wildboarclough trap in recent years; there are only fifteen Cheshire records that pre-date its first appearance there in 2017.



Alison & Julian Borrow

73.238 **Dark Brocade** *Mniotype adusta* (Esper, 1790) One at Midgley Lane, Wildboarclough on 5th June (A&JB) and one at Meadowside, Burwardsley on 25^h June (MRW).



73.246 **Lead-coloured Drab** Orthosia populeti (Fabricius, 1781) One at Boughton Heath allotments on 19th March (CJ) and one at Heath Lane allotment, Little Sutton on 24th March (HJ).

Huw John

73.248 **Northern Drab** *Orthosia opima* (Hübner, [1809]) One at Sudworth Road, New Brighton on 31st March (TWa). The first in Cheshire since 1983.



Tricia Wain

73.257 **Beautiful Yellow Underwing** *Anarta myrtilli* (Linnaeus, 1761) A larva at Lindow Common on 29th June (Josh Styles) and another larva at Thurstaston Common on 27th July (CD).

73.272 **Glaucous Shears** *Papestra biren* (Goeze, 1781) Three on different dates at Midgley Lane, Wildboarclough: on 9th May, two on 2nd June and two on 9th June (A&JB).

73.273 **Shears** *Hada plebeja* (Linnaeus, 1761) One at Handbridge, Chester on 1st June (JW), one at Chester Zoo Nature Reserve on 30th June (MB, IC, SD, ED, SWH, PH) and one at Deansfield Way, Elton on 9th July (MB, SWH). 73.282 **Varied Coronet** *Hadena compta* ([Denis & Schiffermüller], 1775) One at Wistaston on 11th June and another at the same site on 23rd June (JL). One at Church Way, Wybunbury on 16th June (AML). One at Back Lane, Shavington on 23rd June and another at the same site on 30th June (RB). All but one of fourteen previous Cheshire records are from this century.



Angela Lidgett

73.290 **Brown-line Bright-eye** *Mythimna conigera* ([Denis & Schiffermüller], 1775) One at Burton Mere Wetlands RSPB (West) on 17th July (GJ).



73.307 **Pearly Underwing** *Peridroma saucia* (Hübner, [1808]) One at Dawlish Road, Wallasey on 4th September (CS).

Colin Schofield

73.322 **Archer's Dart** *Agrotis vestigialis* (Hufnagel, 1766) One at Upton Road, Moreton on 1st July (GC) and one at The Summit, Wallasey on 20th July (S&JE).



Graham Connolly



73.324 **Crescent Dart** *Agrotis trux* (Hübner, [1824]) One at Kingsley on 23rd July (PM). Apart from the record from Upton, Chester in 2020, the four other Cheshire records stretch from 1990 back to1917.

Paul Miller



73.331 **Barred Chestnut** *Diarsia dahlii* (Hübner, [1813]) One at Midgley Lane, Wildboarclough on 6th August, another at the same site on 11th August (A&JB) and three at Kennel Wood, Lyme Park on 25th August (AHa).

Alison & Julian Borrow



73.337 **White-marked** *Cerastis leucographa* ([Denis & Schiffermüller], 1775) One at Meadowside, Burwardsley on 22nd March (MRW). The third Cheshire record, after two in Alsager and in Willaston, Nantwich in 2018.

Mike Whiteside

73.351 Double Dart Graphiphora augur (Fabricius, 1775)

At the same site - Coole Fishery, near Audlem - one on 27th June (PG) and again on 10th July and on 13th July (PFA). Also, one at Circular Drive, Greasby on 8th July (L&MH).

73.355 Neglected Rustic Xestia castanea (Esper, 1798)

A larva off heather at Taxal Moor on 4th April (SHH, AS) and an adult moth at Acre Lane, Cheadle Hulme on 5th September (DBo).



Dave Booth

73.356 **Heath Rustic** *Xestia agathina* (Duponchel, 1827) One at Midgley Lane, Wildboarclough on 29th August (A&JB, JO), one at Arden House, Duckington on 1st September (FMcC), one at Marbury Country Park on 6th September (DJ) and one at Linley Lane, Alsager on 7th September (MD).



Fraser McConnell

Records of some species did not meet the criteria for inclusion in the previous section, but are worthy of further comment. Some of these are mentioned below.

Recorded seven times in 2021, 73.085 **Marbled Green** *Nyctobrya muralis* appeared at New Brighton and at Wallasey. There is only one other record of the species: two specimens on a wall at Chester in 1899.

In three years, the number of Cheshire records of 65.003 **Barred Hook-tip** *Watsonalla cultraria* has almost doubled. The seven records in 2021 were all in the east of the county.

Nine of the year's ten records of 73.059 **Toadflax Brocade** *Calophasia lunula* were in the area around Crewe and Nantwich, but a specimen was also observed in September in Ellesmere Port.

First recorded in Cheshire in 2006, at Alsager, 70.055 Large Twin-spot Carpet *Xanthorhoe quadrifasiata* was sighted nine times in 2021, from Burwardsley to Marple, taking the total number of records in Cheshire to 41.

There had been only fourteen records in Cheshire of 72.010 **Black Arches** *Lymantria monacha* up to 2019, since when the total has reached 44, predominantly from the south and west of the county.

The number of Cheshire records of 70.264 **Satin Beauty** *Deileptenia ribeata* went up by over 18 per cent, five of the seven records in 2021 coming from Alsager. After a gap of two years, 2021 brought a similar percentage increase in the total number of records of 70.110 **Small Autumnal Moth** *Epirrita filigrammaria*, all from its stronghold of the eastern hills.

Also apparently thriving is 72.049 **Orange Footman** *Eilema sororcula*, the ten records in 2021 taking the total for Cheshire to 52. Recorded eight times, not only around the Northwich flashes, but also at Ellesmere Port and Thurstaston, was the 52.014 **Six-belted Clearwing** *Bembecia ichneumoniformis*, of which there are now 58 Cheshire records.

Two records are conspicuous among the thirteen in 2021 of 70.104 **Devon Carpet** *Lampropteryx otregiata:* the observations at Burton Mere Wetlands and at Wybunbury are the only ones away from the more usual stamping ground of Wildboarclough, Lyme Park and Higher Poynton. The Cheshire total now stands at 62.

Of the 65 Cheshire records of 70.036 **Maiden's Blush** *Cyclophora punctaria*, 38 were dated between the 1800's and 1973; the majority were from Delamere Forest. Fifteen new records have been added in the last two years. The nine in 2021 were distributed widely throughout the county.

The record in 2018 at Bromborough of 49.237 *Epinotia signatana* was the first since 1887, but five more records have been added for 2021. The year's five records of 16.019 *Paraswammerdamia albicapitella* have doubled the total for Cheshire. Following six records in 2020 of 63.048 *Palpita vitrealis*, four more observations of the species in 2021 boosted its Cheshire total to fifteen.

Migrant Species in 2021

The following table shows the species of migrant moths that were recorded in Cheshire in 2021. A comparison with the list from 2020 shows that Clifden Nonpareil, Gem and *Metalampra italica* were new, but there was no sign in 2021 of Convolvulus Hawk-moth, Death's Head Hawk-moth, Beautiful Marbled, Scarce Bordered Straw or Blossom Underwing.

АВН	Common Name	Taxon	Records	Moths	Earliest Date	Latest Date
18.001	Diamond-back Moth	Plutella xylosteana	157	220	30-Mar	27-Oct
28.008	-	Metalampra italica	3	3	17-Jul	8-Sep
63.031	Rusty-dot Pearl	Udea ferrugalis	11	11	29-Jul	18-Nov
63.046	-	Duponchelia fovealis	1	1	25-Oct	25-Oct
63.048	-	Palpita vitrealis	4	4	21-Jul	9-Nov
63.052	Rush Veneer	Nomophila noctuella	9	12	13-Jun	28-Aug
69.010	Humming-bird Hawk-moth	Macroglossum stellatarum	7	7	24-Jun	31-Dec
70.038	Vestal	Rhodometra sacraria	1	1	11-Sep	11-Sep
70.047	Gem	Nycterosea obstipata	1	1	11-Sep	11-Sep
72.076	Clifden Nonpareil	Catocala fraxini	1	1	24-Sep	24-Sep
73.015	Silver Y	Autographa gamma	837	1194	13-May	11-Nov
73.307	Pearly Underwing	Peridroma saucia	1	1	4-Sep	4-Sep
73.327	Dark Sword-grass	Agrotis ipsilon	41	42	30-Mar	6-Nov



Metalampra italica David Bedford

Species new for their respective 10km squares in 2020

Here is a summary of the species that were new for their respective 10km squares in 2021. A further 460 new hectad records were added during 2021 (down from 552 in 2020).

For the second year in a row, the square with the biggest increase in new species was SJ39 (New Brighton and Liscard); 57 species were noted there in 2021 that had not previously been recorded in that square. Not much of VC58 falls into SK06 near Three Shires Head on the border with Derbyshire and Staffordshire, but 42 new species were attributed to Cheshire in that square in 2021.

1			1						(2		
SD			N	lew Spe	cies pe	r Hectad	d in 2021		0	0 SE	0	
9		7	57			0	3	29	5	3	0	
8	0	2	15	0	2	8	9	5	11	14		
7		34	13	9	8	4	15	8	2	2		
6			26	14	1	21	3	4	4	42	5	
5			0	31	15	13	5	8				
4				1	1	6	0					
3						0	h					
SJ	1	2	3	4	5	6	7	8	9	SK	1	2

Some of the squares are only partially in VC58 and although species may have been recorded in adjacent counties, they are new for our side of the boundary. The following are listed in the Agassiz, Beavan & Heckford taxonomic order for each 10km square.

SJ27

Case-bearing Clothes Moth Tinea pellionella; Skin Moth Monopis laevigella; Caloptilia betulicola; Apple Ermine Yponomeuta malinellus; Zelleria hepariella; Paraswammerdamia nebulella; Ypsolopha sylvella; Leek Moth Acrolepiopsis assectella; Argyresthia spinosella; Apple Fruit Moth Argyresthia conjugella; Cherry Fruit Moth Argyresthia pruniella; Crassa unitella; Batia lunaris; Anarsia innoxiella; Athrips mouffetella; Exapate congelatella; Acleris laterana; Acleris sparsana; Rhomboid Tortrix Acleris rhombana; Bactra lancealana; Ancylis badiana; Epinotia nisella; Eucosma hohenwartiana; Epiblema foenella; Cydia splendana; Pammene fasciana; Dioryctria simplicella; Acrobasis repandana; Box-tree Moth Cydalima perspectalis; Crambus lathoniellus; Brown China-mark Elophila nymphaeata; Yellow Horned Achlya flavicornis; Pine Carpet Pennithera firmata; Small Dotted Buff Photedes minima.

SJ28

Trifurcula immundella; Anania perlucidalis.

SJ29

Bird-cherry Ermine Yponomeuta evonymella; Tachystola acroxantha; Lozotaeniodes formosana; Hypsopygia glaucinalis; Palpita vitrealis; Eudonia lacustrata; Grey Arches Polia nebulosa.

SJ36

Honeysuckle Moth Ypsolopha dentella; Hawthorn Moth Scythropia crataegella; Tachystola acroxantha; Lozotaeniodes formosana; Green Oak Tortrix Tortrix viridana; Aleimma loeflingiana; Garden Rose Tortrix Acleris variegana; Cochylis atricapitana; Eudemis profundana; Cherry Bark Tortrix Enarmonia formosana; Ancylis achatana; Bud Moth Spilonota ocellana; Epinotia bilunana; Gypsonoma sociana; Pine Shoot Moth Rhyacionia buoliana; Codling Moth Cydia pomonella; Cydia splendana; Lunar Hornet Moth Sesia bembeciformis; Phycita roborella; Hypsopygia glaucinalis; Box-tree Moth Cydalima perspectalis; Eudonia lacustrata; Chocolate-tip Clostera curtula; Round-winged Muslin Thumatha senex; Coronet Craniophora ligustri; Silky Wainscot Chilodes maritima.

SJ37

Eriocrania sangii; Ectoedemia heringella; Orchard Ermine Yponomeuta padella; Willow Ermine Yponomeuta rorrella; Agonopterix yeatiana; Coleophora albidella; Epinotia signatana; Eucosma tripoliana; Dichrorampha simpliciana; Cydia conicolana; Pyrausta despicata; Scalloped Hook-tip Falcaria lacertinaria; Gem Nycterosea obstipata.

SJ38

Ectoedemia heringella; Nemapogon ruricolella; Triaxomasia caprimulgella; Niditinea striolella; Caloptilia falconipennella; Acrocercops brongniardella; Phyllocnistis citrella; Carpatolechia decorella; Batrachedra praeangusta; Mompha jurassicella; Grapholita lobarzewskii; Pammene giganteana; Pammene argyrana; Pammene suspectana; Yellow-legged Clearwing Synanthedon vespiformis.

SJ39

Tinea trinotella; Paraswammerdamia nebulella; Ypsolopha ustella; Depressaria daucella; Batrachedra praeangusta; Elachista atricomella; Schreckensteinia festaliella; Barred Fruit-tree Tortrix Pandemis cerasana; Lozotaeniodes formosana; Aleimma loeflingiana; Acleris sparsana; Agapeta hamana; Piniphila bifasciana; Ancylis badiana; Epinotia signatana; Nut Bud Moth Epinotia tenerana; Epinotia ramella; Epinotia bilunana; Eucosma cana; Notocelia incarnatana; Notocelia trimaculana; Pine Shoot Moth Rhyacionia buoliana; Cydia ulicetana; Lunar Hornet Moth Sesia bembeciformis; Matilella fusca; Scoparia pyralella; Catoptria pinella; Catoptria falsella; Brown China-mark Elophila nymphaeata; Small China-mark Cataclysta lemnata; Beautiful China-mark Nymphula nitidulata; Pebble Hook-tip Drepana falcataria; Single-dotted Wave Idaea dimidiata; Small Blood-vein Scopula imitaria; Blood-Vein Timandra comae; July Highflyer Hydriomena furcata; May Highflyer Hydriomena impluviata; Grey Pine Carpet Thera obeliscata; Phoenix Eulithis prunata; Dark Marbled Carpet Dysstroma citrata; V-Pug Chloroclystis v-ata; White-spotted Pug Eupithecia tripunctaria; Golden-rod Pug Eupithecia virgaureata; Tawny-barred Angle Macaria liturata; Dotted Border Agriopis marginaria; Engrailed Ectropis crepuscularia; Common Wave Cabera exanthemata; Chocolate-tip Clostera curtula; Scarce Footman Eilema complana; Knot Grass Acronicta rumicis; Shark Cucullia umbratica; Svensson's Copper Underwing Amphipyra berbera; Marbled Green Nyctobrya muralis; Deep-brown Dart Aporophyla lutulenta; Northern Drab Orthosia opima; Pearly Underwing Peridroma saucia; Purple Clay Diarsia brunnea.

SJ44

Scarlet Tiger Callimorpha dominula.

SJ45

Opostega salaciella; Bird-cherry Ermine Yponomeuta evonymella; Hawthorn Moth Scythropia crataegella; Batia lunaris; Tachystola acroxantha; Bryotropha terrella; Teleiopsis diffinis; Exoteleia dodecella; Elachista canapennella; Blastobasis adustella; Brown Plume Stenoptilia pterodactyla; Epagoge grotiana; Lozotaeniodes formosana; Aleimma loeflingiana; Agapeta hamana; Aethes smeathmanniana; Celypha striana; Bactra lancealana; Eucosma obumbratana; Eucosma cana; Bee Moth Aphomia sociella; Acrobasis advenella; Meal Moth Pyralis farinalis; Anania coronata; Udea prunalis; Box-tree Moth Cydalima perspectalis; Evergestis pallidata; Scoparia pyralella; Eudonia lacustrata; Marbled Brown Drymonia dodonaea; Black Arches Lymantria monacha.

SJ46

Zelleria hepariella; Coleophora lineolea; Cnephasia longana; Eupoecilia angustana; Endothenia marginana; Endothenia nigricostana; Epiblema cirsiana; Endotricha flammealis; Pyrausta despicata; Scallop Shell Rheumaptera undulata; Haworth's Pug Eupithecia haworthiata; Cypress Pug Eupithecia phoeniceata; Brussels Lace Cleorodes lichenaria; Coronet Craniophora ligustri.

SJ47

Mompha locupletella; Acleris ferrugana; Willow Tortrix Epinotia cruciana; Palpita vitrealis; Schoenobius gigantella; Maiden's Blush Cyclophora punctaria; Lempke's Gold Spot Plusia putnami; Toadflax Brocade Calophasia lunula; Brown-veined Wainscot Archanara dissoluta.

SJ54

Scarlet Tiger Callimorpha dominula.

SJ55

Opostega salaciella; Cherry Fruit Moth Argyresthia pruniella; Hawthorn Moth Scythropia crataegella; Anarsia spartiella; Mirificarma mulinella; Coleophora mayrella; Carnation Tortrix Cacoecimorpha pronubana; Acleris ferrugana; Aethes smeathmanniana; Hedya ochroleucana; Zeiraphera isertana; Eucosma campoliliana; Dichrorampha acuminatana; Box-tree Moth Cydalima perspectalis; White-marked Cerastis leucographa.

SJ56

Large Twin-spot Carpet Xanthorhoe quadrifasiata.

SJ57

Willow Ermine Yponomeuta rorrella; Leek Moth Acrolepiopsis assectella; Metalampra italica; Coleophora trifolii; Epinotia signatana; Evergestis pallidata; Clifden Nonpareil Catocala fraxini; Crescent Dart Agrotis trux.

SJ58

Beautiful China-mark Nymphula nitidulata; Northern Winter Moth Operophtera fagata.

SJ64

Cnephasia longana; Grapholita janthinana; Ringed China-mark Parapoynx stratiotata; Satyr Pug Eupithecia satyrata; Barred Umber Plagodis pulveraria; Marbled White Spot Deltote pygarga.

SJ65

Monopis crocicapitella; Phyllonorycter lantanella; Willow Ermine Yponomeuta rorrella; Agonopterix alstromeriana; Bryotropha senectella; Coleophora trifolii; Stathmopoda pedella; Aethes smeathmanniana; Notocelia rosaecolana; Cydia fagiglandana; Plum Fruit Moth Grapholita funebrana; Rhodophaea formosa; Orange Footman Eilema sororcula.

SJ66

Phyllonorycter platani; Orthotelia sparganella; Leek Moth Acrolepiopsis assectella; Argyresthia trifasciata; Lozotaeniodes formosana; Acleris hastiana; Eudemis profundana; Figure of Eighty Tethea ocularis; Large Twinspot Carpet Xanthorhoe quadrifasiata; Slender Pug Eupithecia tenuiata; Cypress Pug Eupithecia phoeniceata; Seraphim Lobophora halterata; Chocolate-tip Clostera curtula; Round-winged Muslin Thumatha senex; Scarce Footman Eilema complana; Lempke's Gold Spot Plusia putnami; Vine's Rustic Hoplodrina ambigua; Crescent Helotropha leucostigma; Webb's Wainscot Globia sparganii; Barred Sallow Tiliacea aurago; Deep-brown Dart Aporophyla lutulenta.

SJ67

Pyrausta despicata; Haworth's Pug *Eupithecia haworthiata;* Coronet *Craniophora ligustri;* Vine's Rustic *Hoplodrina ambigua.*

SJ68

Phyllonorycter platani; Zelleria hepariella; Eupoecilia angustana; Dioryctria sylvestrella; Euzophera pinguis; Anania perlucidalis; Bordered Beauty Epione repandaria; Round-winged Muslin Thumatha senex.

SJ75

Phyllonorycter lantanella; Metalampra italica; Scoparia subfusca; Maiden's Blush Cyclophora punctaria; Vine's Rustic Hoplodrina ambigua.

SJ76

Cyclamen Tortrix Clepsis spectrana; Scarlet Tiger Callimorpha dominula; Red Sword-grass Xylena vetusta.

SJ77

Stigmella glutinosae; Triaxomera parasitella; Phyllonorycter lantanella; Agonopterix nervosa; Bryotropha domestica; Variegated Golden Tortrix Archips xylosteana; Exapate congelatella; Lunar Hornet Moth Sesia bembeciformis; Box-tree Moth Cydalima perspectalis; Eudonia angustea; Eudonia truncicolella; Calamotropha paludella; Round-winged Muslin Thumatha senex; Vine's Rustic Hoplodrina ambigua; Pale Pinion Lithophane socia.

SJ78

Leek Moth Acrolepiopsis assectella; Epiblema foenella; Acrobasis repandana; Anania fuscalis; Anania crocealis; Agriphila selasella; Catoptria margaritella; Round-winged Muslin Thumatha senex; Vine's Rustic Hoplodrina ambigua.

SJ79

Phyllonorycter lantanella; Scarlet Tiger Callimorpha dominula; Beautiful Hook-tip Laspeyria flexula.

SJ85

Caloptilia falconipennella; Argyresthia sorbiella; Psoricoptera gibbosella; Cochylimorpha straminea; Pammene giganteana; Barred Hook-tip Watsonalla cultraria; Burnet Companion Euclidia glyphica; Obscure Wainscot Leucania obsoleta.

SJ86

Yarrow Plume Gillmeria pallidactyla; Leopard Moth Zeuzera pyrina; Box-tree Moth Cydalima perspectalis; Nutmeg Anarta trifolii.

SJ87

Caloptilia robustella; Willow Ermine Yponomeuta rorrella; Argyresthia dilectella; Agonopterix ocellana; Eudonia pallida; Round-winged Muslin Thumatha senex; Scarce Footman Eilema complana; Obscure Wainscot Leucania obsoleta;

SJ88

Triaxomera fulvimitrella; Phyllonorycter lantanella; Leek Moth Acrolepiopsis assectella; Pine Hawk-moth Sphinx pinastri; Feathered Ranunculus Polymixis lichenea.

SJ89

Eriocrania sparrmannella; Stigmella atricapitella; Nematopogon swammerdamella; Narycia duplicella; Morophaga choragella; Bucculatrix nigricomella; Phyllonorycter cerasicolella; Phyllonorycter lantanella; Paraswammerdamia albicapitella; Acrolepia autumnitella; Argyresthia spinosella; Agonopterix ocellana; Hypatima rhomboidella; Coleophora serratella; Mompha langiella; Cochylis roseana; Apotomis turbidana; Celypha striana; Endothenia gentianaeana; Epiblema sticticana; Eudonia truncicolella; Agriphila latistria; Bordered White Bupalus piniaria; Buff Footman Eilema depressa; Mullein Cucullia verbasci; Barred Sallow Tiliacea aurago; Small Ranunculus Hecatera dysodea; Southern Wainscot Mythimna straminea.

SJ96

Ash Bud Moth Prays fraxinella; Mompha conturbatella; Pammene regiana; Small China-mark Cataclysta lemnata.

SJ97

Tinea trinotella; Zelleria hepariella.

SJ98

Depressaria sordidatella; Elachista alpinella; Cydia cosmophorana; Grapholita lobarzewskii; Box-tree Moth Cydalima perspectalis; Beautiful China-mark Nymphula nitidulata; Dark Umber Philereme transversata; Maple Pug Eupithecia inturbata; Sycamore Acronicta aceris; Vine's Rustic Hoplodrina ambigua; Obscure Wainscot Leucania obsoleta.

SJ99

Nemophora cupriacella; Pine Shoot Moth Rhyacionia buoliana; Acrobasis repandana; Box-tree Moth Cydalima perspectalis; Angle-striped Sallow Enargia paleacea.

SK06

Eriocrania unimaculella; Eriocrania cicatricella; Stigmella microtheriella; Tinea semifulvella; Phyllonorycter harrisella; Phyllonorycter viminiella; Ypsolopha scabrella; Esperia sulphurella; Diurnea lipsiella; Agonopterix ocellana; Monochroa cytisella; Coleophora paripennella; Elachista argentella; Yarrow Plume Gillmeria pallidactyla; Wood Sage Plume Capperia britanniodactylus; Large Fruit-tree Tortrix Archips podana; Cochylimorpha straminea; Eudemis profundana; Apotomis sauciana; Eucosma campoliliana; Bramble Shoot Moth Notocelia uddmanniana; Pyrausta despicata; Pyrausta purpuralis; Udea olivalis; Catoptria margaritella; Beautiful China-mark Nymphula nitidulata; Oak Hook-tip Watsonalla binaria; Drinker Euthrix potatoria; Eyed Hawk-moth Smerinthus ocellata; Pine Hawk-moth Sphinx pinastri; July Belle Scotopteryx luridata; Red Carpet Xanthorhoe decoloraria; Shoulder Stripe Earophila badiata; Small Autumnal Moth Epirrita filigrammaria; Small Yellow Wave Hydrelia flammeolaria; White-spotted Pug Eupithecia tripunctaria; Tawny Speckled Pug Eupithecia icterata; September Thorn Ennomos erosaria; Marbled White Spot Deltote pygarga; Mottled Rustic Caradrina morpheus; Bird's Wing Dypterygia scabriuscula; Golden-rod Brindle Xylena solidaginis.

SK07

Hysterophora maculosana; Latticed Heath Chiasmia clathrata.

SK08

Ectoedemia argyropeza; Tinea trinotella; Ypsolopha parenthesella; Ypsolopha sequella; Elachista argentella; Acleris emargana; Box-tree Moth Cydalima perspectalis; Barred Hook-tip Watsonalla cultraria; Barred Yellow Cidaria fulvata; Vine's Rustic Hoplodrina ambigua; Haworth's Minor Celaena haworthii; Orange Sallow Tiliacea citrago; Feathered Gothic Tholera decimalis; Broad-barred White Hecatera bicolorata.

SK09

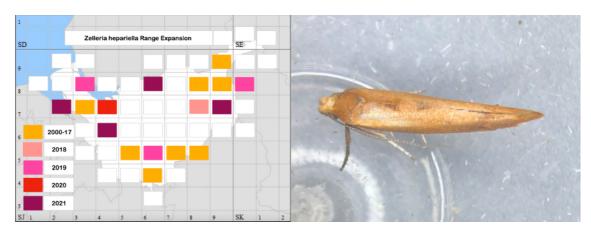
Lunar Hornet Moth Sesia bembeciformis; Autumn Green Carpet Chloroclysta miata; Mother Shipton Euclidia mi.

Eleven species were new to four or more hectads in 2021.

The apparent spread of some of these species across the county is illustrated in this set of maps. It is not easy to state whether it is indicative of a trend to wider geographical distribution or simply a consequence of increased recording.

16.010 Zelleria hepariella (Stainton, 1849)

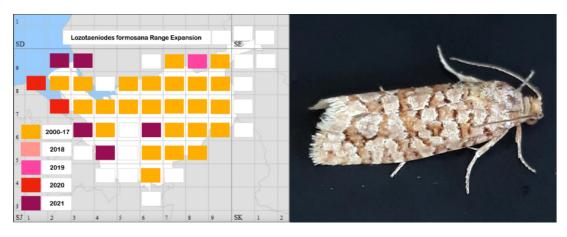
There have been 88 previous records in Cheshire , but the species was noted in Little Neston, Waverton, Warrington and Macclesfield for the first time in 2021.



Clive Washington

49.040 Lozotaeniodes formosana (Frölich, 1830)

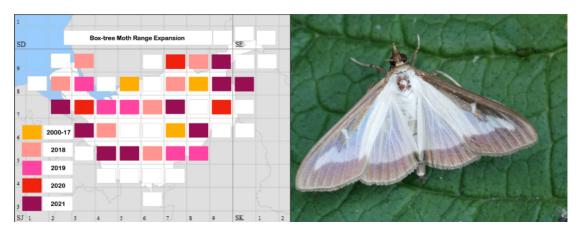
First recorded in the UK in Surrey in 1945, the species made its first appearance in the Cheshire records in 1994 at Prestbury and had spread to 23 further 10km squares by 2017. There was further expansion to the west in 2021, with records at Leasowe, Wallasey, Blacon (Chester) and Carden Park in the south west, as well as Wharton (near Winsford).



Tricia Wain

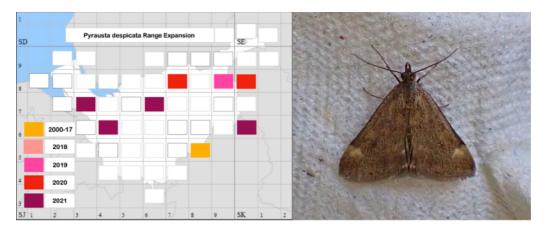
63.054 Box-tree Moth Cydalima perspectalis (Walker, 1859)

This species has progressed further to the south-west and to the north-east of the county.



Graham Jones

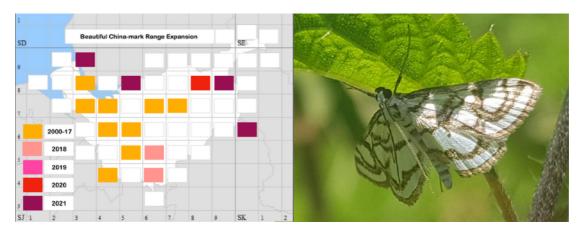
63.005 *Pyrausta despicata* **(Scopoli, 1763)** New in 2021 at Burton Mere, Tattenhall, Marbury Country Park and Wildboarclough.



Alison & Julian Borrow

72.049 Beautiful China-mark Nymphula nitidulata (Hufnagel, 1767)

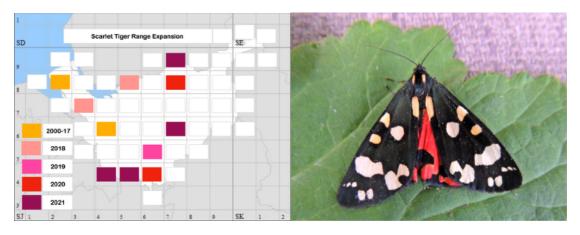
Among ten sightings in 2021 were those newly recorded at New Brighton, Norton Priory, Poynton and Wildboarclough. Another record at Leasowe was the first there since 1978.



Elina Doss

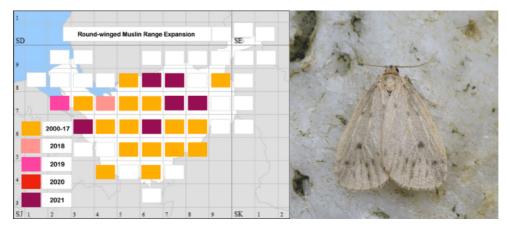
72.029 Scarlet Tiger Callimorpha dominula (Linnaeus, 1758)

New observations were made of this species in Elworth, Sale, Malpas and nearby Bradley.

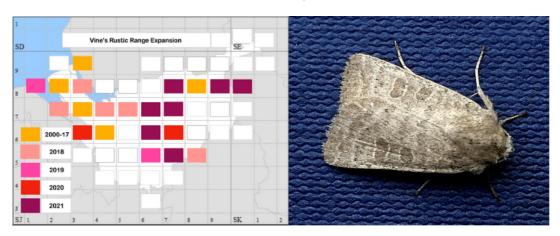


Pete Atherton

72.037 Round-winged Muslin *Thumatha senex* **(Hübner, [1808])** Spotted in 2021 in Blacon, Wharton (Winsford), Warrington, Lymm, Allostock, and Henbury.



Kate Hughes



73.099 Vine's Rustic *Hoplodrina ambigua* ([Denis & Schiffermüller], 1775) Has reached the north-eastern border of the county.

Paul Brewster

Cheshire Moth Recorders for 2021

C Rupert Adams, Chloe Aldridge, Stu Ames, Rebecca Ashworth, Peter F Atherton PFA, Ralph Atherton, Shane Atkinson SA, Dan Axford, Marion Barlow MB, Barry S Barnacal, Nigel Baskerville, Dave Bedford DB, Maile Keagle Belanger MKB, Steven Bell SB, Bill Bellamy, Mel Bellingham MBe, Roger Benson RB, Dave Bentley, Andy Bissitt AB, David Bissitt DBi, Fiona Bithell, Robert Bithell, Irene Blagden, Peter Boardman, Pete Bolton, Dave Booth DBo, Mike Boothman, Alison & Julian Borrow A&JB, Anthony Brandreth, Paul Brewster PB, Colin Brooks, Simon Browne, John P Bryan JPB, Sue D Budd, Emma Burgess, Peter Burton, Victoria J Burton, Sue Byron, Hugo Carlton-Jones, Alan Chadwick, Andrew Charlton, I Cheeseborough, Joe Chester, Helen & Bob Coan H&BC, Stephen P Collins, Richard Comont, Graham Connolly GC, David A Cookson, Ian Copley, Brian Cornelius, Kelly Corvus, David Costello, Sheila Coverdale SC, L Coward, Iona Cowell IC, Hannah Croft, Alex Cropper, Helen Cunn, Carly Curbishley, Mike Dale **MD**, Muriel H Dale **MHD**, Dean Davies **DD**, Harry Davies HD, Erin Dawber, J Dawson JD, Roger L H Dennis, Sean Dick SD, Leanna Dixon, Hannes Dobrat, Mike Dockery & Kevin McCabe, Steph Dolben, Clive Donaldson CD, Elina-Marielle Doss ED, Christine & John Dover, Martin Downes, Mark Dugmore, Brian Dyke, Nigel Earp NE, David W Edwards, Steve and Janine Edwards S&JE, Andrew Emmerson AE, Paul Field, Andrew Firth, Eric Fletcher, Keith Fowler, Rob Fowler, Stuart Fraser, Richard G Gabb, Keith Gallie, Esther Gibson, John Gilbody, Alan P Graham, David G Green DGG, Heather & Les Green, Morgan Green, Jane Herrell Grey, Lisa Grice, Gwyn Griffiths, Paul Griffiths PG, Martin Grimes, Kevin Hall, Les and Marian Hall L&MH, Tim & Elma Halliday, Sheelagh Halsey, Phil J Hampson PJH, A Handford AHa, Chris Hanley, Julia Harding, Grace C Hardy, Loren Hardy, Peter B Hardy, Sam Harley, Barbara Harris, Sheena Hatton, Claire Healey CH, Gary Hedges, Alida Heston AH, Jane E Hewitt JEH, Dave Higginson-Tranter DH-T, Paul Martin Hill PMH, Paul F Hillyer, Roy Hilton RH, Zac Hinchcliffe, Steve H Hind SHH, Elizabeth Hollinshead, Mike Holmes MH, Steve W Holmes SWH, Peter Hooper, Paul Hopkins PH, Kate Hughes KH, Anthony Hunter, Andy Ingham AI, Terry Instone, Toby James Irving, Philip Ish, Ann Islam, Darren D Jackson, John Jakeman JJ, Dave James DJ, Andrew Jennings-Giles, Mandy Jervis & Glyn Owen MJ&GO, Huw John HJ, Clive Jones CJ, Ed Spark Jones, Graham Jones GJ, Matthew Jones, Meriel Jones, Simon Jones, Jon M Kelly, Tom Kenwright, Jason King JK, David A Kitching, Debbie Knight, Simon Knight SK, Charles Knowles, Rosie Lacey, Emily Lake, Andrew Lamb, John Latham JLa, Andrew Law, Angela M Lidgett AML, Julie Lightfoot JL, Ted Lock TL, Helen Longmore, Roy Lowry, Karen Luckman, Alison Macchi, Fiona MacDougall, Jeanette & Dave Maddy DJM, John H Marchant, Susan Marley, Antony Marriott, Fraser McConnell FMcC, Shelley McDonald, Steve J McWilliam, Paul Miller PM, Colin S Millington, Jade Miner, Amanda Moore AMo, Gail Morgan, Paul Morris PMo, Jon Mortin, Anita Mulligan, Natasha Murwill, Alex Neal AN, Keith Neal, Zoey Nightingale, Robyn O'Reilly, Mark O'Sullivan, Paul Oldfield, J Oliver JO, Greg Osborn GO, Chris Overton, John Owen, Kevin Peace KP, Michael Pentland, Mike Perchard, Jane Platt, Toby Pritchard, Paul Quigley PQ, John W Rayner JWR, Andrew Read, Chris Reiki, Anne-Marie Richard AMR, Adrian Richards, Carla Richards, Stephen Richardson SR, Ian Roberts, David Robinson, Neil Robinson, Martin Rocke, John Rogers, Julie Rogers, Yvonne Rogers, Gemma Roome, Pat Rose, Paul Round PR, J Rowlands, Richard A Rowlandson, David P Rumley, Edwin Samuels, Colin Schofield CS, Angie Seymour AS, John P Shaughnessy JPS, Brandon Shaw, Chris Shaw, David J Shaw, Peter Shaw PS, Jan Sheppard, Jack Shutt, Carol Siddorn, Margaret Sixsmith, Dave R Skingsley, David Slade, Ben Smart BS, Diane Smith, Heather Smith, Peter Smith, Tony V Smith, Richard Speechley, Martyn Stanyer, Andrew Steele, Geraldine Stephenson, Josh Styles, Jack H Swan JHS, J Tatlow, Agnes Tavener, Dave Taylor DT, Joseph Taylor, Naomi Taylor, Amy Thomas, Charles Thompson, Elizabeth Thornton, David Tomlinson, E Topelian, Dave Trent DTr, Jonathan Tugwood, Bill Underwood BU, Tricia Wain TWa, Jon Wainwright JW, David Walsh, Tim Ward TW, Clive Washington CW, Natalie Webb, Charles Whitaker, Derek Whiteley, Jenny Whiteside, Michael R Whiteside MRW, Roger Wilkinson RW.

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