

# AGROMYZIDAE NEWSLETTER

## LATEST NEWS FROM THE NATIONAL AGROMYZIDAE RECORDING SCHEME

### A SUMMARY OF 2018

#### A BRIEF UPDATE

##### THE SECOND YEAR.....

It is now two years since the National Agromyzidae Recording Scheme (NRS) was launched and it is hoped that everyone who has and still does contribute to the scheme is benefitting from its existence!

At present, there are 31,932 records in the NRS Database, covering 326 species, which represents 80% of the species known in the UK.

Historical records are still be sourced and it is hoped that during the upcoming year, data from Kenneth Spencer's collection at NHM London will be extracted and added to the NRS database, which will almost certainly account for the missing 20% of species.

During 2018, the NRS ran a mini citizen science project which attempted to ascertain the true distribution status of the Hogweed miners *Phytomyza pastinacae* and *Phytomyza spondylia*. Several people participated, although success in rearing adult males, unfortunately, was rather poor. Their larval mines were also rather thin on the ground during the year, possibly due to the heat wave during the summer.

Despite the limited amount of specimens, the project was made worthwhile by one adult alone, with *Phytomyza pastinacae* been reared from mines collected in Northern Ireland, which represented the first confirmed occurrence of the species there.

It is hoped that the project will continue in 2019 and that conditions allow a much better year for the species.

Unfortunately, the NRS newsletter was limited to just four editions (excluding this current edition). However, hopefully more will be produced next year, especially during the more productive leaf-mining months.

Feedback and the comments received have been very positive but please do get in touch if you have any suggestions in terms of improvements or aspects of the NRS you would like to be addressed!

#### SUMMARY OF IRECORD DATA

##### MONTHLY BREAKDOWN OF IRECORD RECORDS

During the past twelve months, the following 'accepted' records were submitted via iRecord;

Month	2017-18	2016-17
December '17	82	171
January '18	132	130
February	128	139
March	142	105
April	111	102
May	178	134
June	366	106
July	277	172
August	360	168
September	269	241
October	284	347
November	203	169
<b>TOTAL</b>	<b><u>2,532</u></b>	<b><u>1,984</u></b>

The amount of records received during the summer was mightily impressive, in spite of the prolonged period of hot weather!

Compared to the NRS's first year, 'accepted' records have increased by 25%, which is a superb achievement - every record really does help increase our knowledge and understanding of the Agromyzidae.

Many records, unfortunately, had to be rejected for not been supported by a photo. This stipulation is still met with some resistance at times, however, by having this requirement in place, it has ensured that the NRS Database is as accurate as possible.

Later in the newsletter, the number and actual species recorded will be discussed.

A very big thank you to everyone who has contributed to the totals above, hopefully 2019 will yield even more records, could 3,000 be achieved!?

During the year, 163 recorders submitted records via iRecord, compared to 149 recorders during the NRS's first year. The list below lists all contributors and the number of records contributed;

<b>Recorder</b>	<b>No. of records submitted</b>		
Graham Moates	296	Ian Andrews	10
James Emerson	240	Mike Lush	10
Robert Homan	222	Phil Playford	10
Aideen O'Doherty	201	Tim Burkinshaw	10
Andy & Melissa Banthorpe	197	Tony Davis	10
Martin Harvey	115	Annie Haycock	9
Sam Thomas	73	Saharima Roenisch	9
Graham Calow	67	Simon Hughes	9
Mike Shurmer	60	Iain Outlaw	8
Ryan Mitchell	42	Jerry Clough	8
Richard Shillaker	39	Laurie Jackson	8
Graham Watkeys	38	Martyn Hnatiuk	8
Adam Parker	37	Steve Priestley	8
Bill Ely	37	Andrew Watchhorn	7
Mark Wilson	37	David Nicholls	7
Malcolm Jennings	29	Derek Whiteley	7
Christopher Iles	28	Harry Rutherford	7
Phil Brighton	28	Unknown	7
Graeme Davis	27	Andreas Beaumont	6
Lynn Read	27	Antony Marriott	6
Sam Buckton	26	David Gould	6
Sue Timms	25	Gary Hibberd	6
Stuart Ogilvy	23	Paul Challinor	6
James McCulloch	20	Robert Wolton	6
Steven Crellin	19	Alan Salter	5
George Tordoff	18	Barbara Cooper	5
Neil Fletcher	17	Bryan Formstone	5
Pete Mella	17	Charles Robbins	5
Marco McGinty	16	Andy Brown	4
Peter Smith	16	Andy Godfrey	4
Andrew Skotnicki	15	Kevin Rylands	4
Lee Johnson	15	Laura Beveridge	4
Peter Hall	15	Martin Bell	4
Jacob Everitt	13	Richard Comont	4
Rodney Monteith	13	Annie Irving	4
Ali Shuttleworth	12	Ben Mullen	3
Tim Hodge	12	Chloe Griffiths	3
Terry Box	11	Chris Bentley	3
Helen Bell	10	Craig Mabbett	3
		Dan Wrench	3
		David Fotheringham	3
		David Inward	3
		David Slade	3
		Gary Hedges	3
		John Adams	3

John O Boyle	3	James Harding-Morris	1
Jon Mortin	3	Jim Cresswell	1
Keith Kerr	3	John Pitts	1
Laura Moss	3	John Robbins	1
Mary Harris	3	Kate Nightingale	1
Natalie Harmsworth	3	Lesley Cannon	1
Nigel Gilligan	3	Louis Driver	1
Patrick Bonham	3	Maggie Frankum	1
Pauline Campbell	3	Mark Pollitt	1
Robert Jaques	3	Martin Tordoff	1
Sabina George	3	Michael Southall	1
Stephen Plummer	3	Michael Woods	1
Alex Whitlock	2	Mike Higgott	1
Alice Parfitt	2	Neil Gregory	1
Ann Smith	2	Nick Wood	1
Barrie Hamill	2	Paul Bowyer	1
Brad Scott	2	Paul Parsons	1
Elaine Wright	2	Paul Seligman	1
Ellen Wilson	2	Pembrokeshire Recording Group	1
John Showers	2	Peter Pearson	1
Julian Small	2	Peter Sturgess	1
Liam Crowley	2	R Zloch	1
Ted Gatén	2	Ray Pearce	1
A M George	1	Rebecca Davies	1
Adam Rowe	1	Reuben Nebbett-Blades	1
Alan Skeates	1	Richard Wilson	1
Alan Smith	1	Rob Dixon	1
Amanda Barbara	1	Robert Pennington	1
Amy Hicks	1	Sam Buckland	1
Antony Wren	1	Shirley Millar	1
Bob Foreman	1	Stephen Hewitt	1
Ceri Watkins	1	Stephen Weeks	1
Chris Jones	1	Steve Garland	1
Chris Shortall	1	Steve Hughes	1
Cliff Henry	1	Steve Mathers	1
L David Basham	1	Toby Edwards	1
David Turner	1		
Fred Bennett	1		
Graham Bell	1		
Graham Wenman	1		
Harry Witts	1		
Helen Ikin; Steve Woodward	1		
Imogen Cavadino	1		

A massive thank you to every single person and group who has and continues to contribute to the NRS via iRecord. **Every** record really does help to gain a much greater understanding in terms of the population and distribution trends, along with the larval habits of the Agromyzidae.

The supporting images you include also help other recorders with making determinations, something which has been mentioned by many of the people just starting out in recording Agromyzidae.

Almost every recorder who submits records are keen amateur naturalists, with a passion for enhancing their knowledge, whilst at the same time, providing extremely valuable data.

During its first two years, the NRS has received over 4,500 records from iRecord users, which is more than the number of records held within iRecord between its launch in 2012 and 2016. It just shows that by increasing awareness and having a point of contact for recorders who may require assistance, it can really help generate interest in an otherwise rather quite niche family of flies.

Graham Moates, who had never looked at a leaf-mine until 2017, writes;

“I was first introduced to leaf-miners on a churchyard survey in August 2017 by local naturalist and friend, James Emerson. Since this time – inspired by the newly launched Agromyzidae NRS - searching for leaf-mines of both micro-moths and Agromyzidae has become a regular pastime.

My preference has always been for lesser surveyed species groups in areas which are under-recorded. Fortunately, there are many such areas in Norfolk away from the North Norfolk coast and Broads and searching for leaf-mines can literally be undertaken anywhere starting with one's own garden.

Most of my records tend to come from within Norfolk and north Suffolk although I have also managed to get a few records on various trips from Scotland, Northern Ireland and Wales.

The online resources for leaf-mines as well as guidance and prompt verification from the Scheme Organiser are excellent. As a relative newcomer to Agromyzidae, the requirement to submit photos adds to confidence in the record both for myself as a recorder and other data users. Since the start of the NRS, I have managed to submit over 400 accepted Agromyzid records across 47 species.

Looking forward, I hope to find some species, such as *Phytomyza conyzae* and *Chromatomyia scolopendri*, which have so far eluded me and enter the world of rearing and dissection”.



*Agromyza nigrescens*; a late larval record © Graham Moates

Another newcomer to the world of Agromyzidae is Aideen O'Doherty, from Northern Ireland, who writes;

“Up until a few weeks ago I worked in the Stormont Estate in Belfast, Northern Ireland. I have had a casual interest in native plants for some time, and having found Broad-leaved Helleborine (*Epipactis Helleborine*) beside where I park my car on the estate and having then come across CeDAR's online recording portal which feeds into iRecord in an attempt to log it, I started recording plants I saw on the estate to improve my botany. Fungi are quite numerous on the estate, which is fine in the colder months, but what's a girl to record in the summer once she has done most of the plants, or if the bigger fungi are heavily delayed by hot weather as they were this year?

CeDAR is the Northern Ireland Local Environmental Records Centre. They posted a suggestion to record *Phytomyza Illicis* on Twitter at the end of 2016. I found one soon enough. Barry then confirmed my record and I became aware of his newsletters.

I noticed pretty early on that there was precious little in terms of Agro records on CeDAR/iRecord, the NBN or Biodiversity Ireland for Ireland as a whole, so I thought it might be useful to try to record these more. I've been able to provide a good geographical spread this year because I've been on quite a few Northern Ireland Fungus Group Forays, visiting quite a spread of locations across NI.

The newsletters and Barry's promptness and patience in confirming (or indeed refusing) records have helped me to learn. As I worked on the estate, the fact that he checked in so regularly has made it possible for me to revisit mines where I have not managed to capture some key features initially. I have often found things for the first time the day after he mentions them on Twitter.

I seem to find *Phytomyza marginella* quite a lot compared to recorders in Britain, which has led me to wonder if it might be more frequent here? I've found a few things that are new for Ireland or NI but, as there are so few recorders of diptera here, it was always going to be on the cards with the right kind of resources.

The requirement of the scheme to post a photo is, of itself, gradually bringing into existence an id resource that I have found highly valuable.

I've just moved to the Northern Ireland Department of Finance. Its office is on some reclaimed land in the Belfast Harbour Estate. I walked out for my first lunchtime walk on my first day and was greeted, within 100m of the office, by *Aulagromyza heringii* and *Agromyza alnivora*. Not bad eh!”.

Records are received from all over the UK via iRecord, with the following records received per VC during 2018;

VC	County	No. of records	VC	County	No. of records
1	West Cornwall with Scilly	7	41	Glamorganshire	65
2	East Cornwall	6	42	Breconshire	30
3	South Devon	9	43	Radnorshire	1
4	North Devon	6	44	Carmarthenshire	3
5	South Somerset	34	45	Pembrokeshire	16
6	North Somerset	27	46	Cardiganshire	3
7	North Wiltshire	-	47	Montgomeryshire	1
8	South Wiltshire	1	48	Merionethshire	2
9	Dorset	4	49	Caernarvonshire	22
10	Isle of Wight	11	50	Denbighshire	14
11	South Hampshire	18	51	Flintshire	9
12	North Hampshire	33	52	Anglesey	12
13	West Sussex	29	53	South Lincolnshire	6
14	East Sussex	25	54	North Lincolnshire	20
15	East Kent	15	55	Leicestershire (with Rutland)	157
16	West Kent	23	56	Nottinghamshire	7
17	Surrey	46	57	Derbyshire	20
18	South Essex	3	58	Cheshire	23
19	North Essex	9	59	South Lancashire	29
20	Hertfordshire	51	60	West Lancashire	14
21	Middlesex	12	61	South-east Yorkshire	60
22	Berkshire	49	62	North-east Yorkshire	68
23	Oxfordshire	53	63	South-west Yorkshire	56
24	Buckinghamshire	69	64	Mid-west Yorkshire	21
25	East Suffolk	19	65	North-west Yorkshire	9
26	West Suffolk	42	66	County Durham	-
27	East Norfolk	381	67	South Northumberland	5
28	West Norfolk	92	68	North Northumberland	2
29	Cambridgeshire	23	69	Westmorland (with Furness)	26
30	Bedfordshire	99	70	Cumberland	5
31	Huntingdonshire	3	71	Isle of Man	20
32	Northamptonshire	11	72	Dumfriesshire	4
33	East Gloucestershire	113	73	Kirkcubrightshire	3
34	West Gloucestershire	7	75	Ayrshire	13
35	Monmouthshire	13	76	Renfrewshire	5
36	Herefordshire	22	77	Lanarkshire	1
37	Worcestershire	11	80	Roxburghshire	2
38	Warwickshire	14	81	Berwickshire	-
39	Staffordshire	13	82	East Lothian	2
40	Shropshire	70	83	Midlothian	-
			84	Linlithgow	1
			85	Fifeshire	15
			86	Stirlingshire	-

87	West Perthshire	5
92	South Aberdeenshire	1
96	East Inverness-shire	1
100	Clyde Isles	1
103	Mid Ebudes	2
106	East Ross & Cromarty	1
108	West Sutherland	1
111	Orkney	21
H33	Fermanagh	8
H36	Tyrone	10
H37	Armagh	22
H38	Down	137
H39	Antrim	73
H40	Londonderry	12

The NRS does not hold any records for the following VC's;

VC	County
74	Wigtownshire
78	Peeblesshire
79	Selkirkshire
88	Mid Perthshire
89	East Perthshire
93	N. Aberdeenshire
94	Banffshire
95	Moray
97	W. Inverness-shire
98	Argyllshire
99	Dunbartonshire
101	Kintyre
102	South Ebudes
104	North Ebudes
105	W. Ross & Cromarty
109	Caithness

## THE SPECIES.....

### IRECORD SPECIES RECORDED

At present, there are around 400 species of *Agromyzidae* which have been recorded in the UK, not all of which are actual leaf-miners.

Species new to Britain are frequently added to the British list and one such species will be discussed later in the newsletter.

It is no surprise that the Holly leaf miner, *Phytomyza ilicis*, is still the most recorded species, however, it only made up 30% of the total number of records received (2017: 43%).

During the year, 123 species were recorded by iRecord users, compared to the 125 in the previous year;

Species	No. of records
<i>Phytomyza ilicis</i>	769
<i>Phytomyza ranunculi</i>	151
<i>Agromyza anthracina</i>	98
<i>Phytomyza agromyzina</i>	91
<i>Phytomyza chaerophylli</i>	82
<i>Agromyza alnivora</i>	72
<i>Liriomyza amoena</i>	60
<i>Phytomyza lappae</i>	57
<i>Phytomyza glechomae</i>	50
<i>Phytomyza minuscula</i>	48
<i>Phytoliriomyza melampyga</i>	47
<i>Agromyza nana</i>	44
<i>Liriomyza eupatorii</i>	41
<i>Chromatomyia aprilina</i>	39
<i>Chromatomyia primulae</i>	39
<i>Agromyza idaeiana</i>	38
<i>Phytomyza astrantiae</i>	34
<i>Chromatomyia lonicerae</i>	31
<i>Phytomyza cytisi</i>	29
<i>Aulagromyza luteoscutellata</i>	26
<i>Aulagromyza tremulae</i>	26
<i>Agromyza alnibetulae</i>	25
<i>Agromyza flaviceps</i>	25
<i>Amauromyza flavifrons</i>	25
<i>Chromatomyia scolopendri</i>	25
<i>Phytomyza hellebori</i>	24
<i>Amauromyza verbasci</i>	23
<i>Amauromyza labiatarum</i>	21
<i>Liriomyza pusilla</i>	21
<i>Liriomyza strigata</i>	21
<i>Cerodontha iridis</i>	19
<i>Phytomyza aquilegiae</i>	19
<i>Phytomyza leucanthemi</i>	19
<i>Cerodontha iraeos</i>	18
<i>Aulagromyza populicola</i>	16
<i>Chromatomyia milii</i>	15
<i>Agromyza demeijerei</i>	14

<i>Agromyza nigrescens</i>	14	<i>Phytomyza crassiseta</i>	2
<i>Phytomyza ranunculivora</i>	14	<i>Phytomyza hendeli</i>	2
<i>Agromyza dipsaci</i>	13	<i>Phytomyza obscurella</i>	2
<i>Aulagromyza heringii</i>	13	<i>Agromyza flavipennis</i>	1
<i>Liriomyza congesta</i>	13	<i>Agromyza frontella</i>	1
<i>Agromyza sulfuriceps</i>	12	<i>Agromyza igniceps</i>	1
<i>Phytomyza marginella</i>	12	<i>Agromyza lithospermi</i>	1
<i>Liriomyza pascuum</i>	11	<i>Agromyza myosotidis</i>	1
<i>Amauromyza morionella</i>	10	<i>Agromyza nigrociliata</i>	1
<i>Aulagromyza tridentata</i>	10	<i>Agromyza viciae</i>	1
<i>Phytomyza krygeri</i>	10	<i>Agromyza vicifoliae</i>	1
<i>Calycomyza artemisiae</i>	9	<i>Aulagromyza cornigera</i>	1
<i>Chromatomyia nigra</i>	9	<i>Aulagromyza fulvicornis</i>	1
<i>Phytomyza conyzae</i>	9	<i>Aulagromyza hendeliana</i>	1
<i>Chromatomyia horticola</i>	8	<i>Aulagromyza orphana</i>	1
<i>Phytomyza plantaginis</i>	8	<i>Aulagromyza similis</i>	1
<i>Agromyza filipendulae</i>	7	<i>Cerodontha biseta</i>	1
<i>Chromatomyia ramosa</i>	7	<i>Cerodontha capitata</i>	1
<i>Phytomyza angelicae</i>	7	<i>Cerodontha lateralis</i>	1
<i>Phytomyza heracleana</i>	7	<i>Cerodontha phragmitidis</i>	1
<i>Phytomyza petoei</i>	6	<i>Chromatomyia blackstoniae</i>	1
<i>Liriomyza flaveola</i>	5	<i>Chromatomyia periclymeni</i>	1
<i>Nemorimyza posticata</i>	5	<i>Galiomyza morio</i>	1
<i>Phytomyza angelicastris</i>	5	<i>Galiomyza violiphaga</i>	1
<i>Phytomyza tetrasticha</i>	5	<i>Liriomyza cicerina</i>	1
<i>Agromyza johannae</i>	4	<i>Liriomyza orbona</i>	1
<i>Liriomyza puella</i>	4	<i>Liriomyza taraxaci</i>	1
<i>Liriomyza sonchi</i>	4	<i>Napomyza lateralis</i>	1
<i>Phytomyza bipunctata</i>	4	<i>Ophiomyia maura</i>	1
<i>Phytomyza eupatorii</i>	4	<i>Ophiomyia pulicaria</i>	1
<i>Phytomyza tussilaginis</i>	4	<i>Phytomyza aconiti</i>	1
<i>Agromyza albitarsis</i>	3	<i>Phytomyza fallaciosa</i>	1
<i>Calycomyza humeralis</i>	3	<i>Phytomyza flavicornis</i>	1
<i>Chromatomyia asteris</i>	3	<i>Phytomyza origani</i>	1
<i>Chromatomyia syngenesiae</i>	3	<i>Phytomyza pastinacae</i>	1
<i>Phytomyza brunnipes</i>	3	<i>Phytomyza pullula</i>	1
<i>Agromyza abiens</i>	2	<i>Phytomyza rufipes</i>	1
<i>Agromyza mobilis</i>	2	<i>Phytomyza solidaginis</i>	1
<i>Aulagromyza populi</i>	2	<i>Phytomyza spinaciae</i>	1
<i>Cerodontha denticornis</i>	2	<i>Phytomyza tanacetis</i>	1
<i>Cerodontha fulvipes</i>	2	<i>Phytomyza vitalbae</i>	1
<i>Cerodontha muscina</i>	2	<i>Phytomyza wahlgreni</i>	1
<i>Liriomyza pisivora</i>	2		
<i>Phytomyza artemisivora</i>	2		

One species which is not in the above list is *Phytomyza phillyrae*, which was added to the British list by Andy & Melissa Banthorpe in April 2018. They write;

“Our most exciting Agromyzid find this year came in April. My wife Melissa and I were wandering round the churchyard in Barton-le-Clay, Bedfordshire vc30, on 21<sup>st</sup> April 2018 when we came across leaf-mines in the leaves of a tree that we did not recognise. They resembled Agromyzid mines so we took two home to work out what we had. Melissa managed to identify the tree as *Phillyrea latifolia*, also known as Mock Privet. This is an evergreen tree native to the Mediterranean area.

With that information I used the Dutch plant parasites website <https://bladmineerders.nl> to see if I could get an identification for the mine causer. The dichotomous keys took me to *Phytomyza phillyreae*, a known miner of the tree but not known from northern Europe. I made contact with Barry Warrington straightaway and on his advice returned to site and collected more mines. These were then carefully packaged and posted to him.

Barry processed these leaves, removing the puparia to breed through and the first male emerged on 30<sup>th</sup> April. Gendet confirmed the id as *Phytomyza phillyreae* and several more emerged over the following few days. Specimens were sent to the Natural History Museum for the national collection.

It would be worth checking other trees of this species in southern England. Mines should be looked for in spring as the mines are made then and the adults emerge soon after. The species is univoltine.

For more information see the following paper in Dipterists Digest Vol25 part 1 August 2018:-  
*Phytomyza phillyreae* Hering in Buhr (Diptera, Agromyzidae) new to Britain  
BARRY P. WARRINGTON and ANDY M. & MELISSA G. BANTHORPE

Thanks to Barry for all his work on this and getting the paper researched, written and published”.



*Phytomyza phillyreae* mine © Barry P Warrington

This record just shows that there is still so much to discover and by getting out there and looking, anyone could make fantastic discoveries like this!

iRecord is an extremely valuable resource and is really helping to put ‘dots on maps’. The verification process appears to be well received by most users but please do get in touch if you have any suggestions which you think would improve the process.

The NRS would like to thank Martin Harvey at the Biological Records Centre for all his help during the past twelve months with the issues encountered.

Finally, thank you to all the iRecord users who are providing their data to the NRS.

## RECORDS FROM OTHER SOURCES

### INDIVIDUALS AND LERC'S

Many records were submitted directly to the NRS by the following;

Andrew Cunningham

Andrew Graham

Alan Outen

Charlie Fletcher

COFNOD

David Gibbs

George Reiss

Graham Featherstone

Greater Manchester Ecology Unit

Highlands Biological Recording Group

Jenny Seawright

John Coldwell

John Drewett

Keith Alexander

Malcolm Storey

Mike Paskin

Paul Cobb

Rob Edmunds

Seth Gibson

Sir Professor Charles Godfray

W Dolling

A massive thank you to all of the above for submitting their records directly to the NRS.



In total, the above contributors added an additional c5,000 records to the national database, with many of these been records of collected and dissected adults.

The thought of collecting, rearing and dissecting adult material still fills many a recorder with fear but if anyone is considering looking at adults, please do get in touch and the NRS will be delighted to help in any way it can.

## TARGET SPECIES FOR 2019

### NON-LEAF MINING AGROMYZID'S

There are many species of Agromyzidae which do not create leaf-mines but feed in other parts of the plant, such as the roots, seeds and stems.

One genus in particular, *Melanagromyza*, are stem-borers and this time of year is an ideal opportunity to look for their puparia in the stems of various plants.

At present, there are only 230 records for this genus in the NRS database, which represents just 0.7% of the total records!

In many cases, rearing of adult material is essential to allow a definite determination, however, this is usually straightforward and really is worth the effort!

The January newsletter will discuss these in more detail, along with several other species to look out for during the upcoming season.



Puparium of *Melanagromyza lappae* in Burdock stem © Barry P Warrington

## WINNERS AND LOSERS

### HOW SOME SPECIES FARED.....

The number of records for a handful of species increased drastically during the period, compared to the previous years figures, whilst naturally, there were also a few losers.

It is hard to be sure if these fluctuations are due to genuine rises (or falls) in population or whether an increase in awareness is the cause, or indeed a combination of the two.

The biggest 'winner' during the year was *Aulagromyza tremulae*, a species which mines Aspen, with records increasing by 550%, closely followed by the Laburnum miner *Phytomyza cytisi*, who's records increased by 500%.



Mines of *Aulagromyza tremulae* © Barry P Warrington

Other species to have had a much better year include *Agromyza nigrescens* (↑ 240%), *Aulagromyza heringii* (↑ 160%), *Aulagromyza populicola* (↑ 400%), *Cerodontha iraeos* (↑ 121%) and *Phytomyza aquilegiae* (↑ 185%).

From the above species, only *Aulagromyza tremulae* and *Aulagromyza heringii* were mentioned as 'species to look out for' by the NRS.

The Agromyzid which fared the worst during 2018 compared to records received for 2017 was *Agromyza ferruginosa*, a miner of Comfrey (*Symphytum*) and Lungwort (*Pulmonaria*), with not a single record been received. *Agromyza alnibetulae* (↓ 24%), *Amauromyza verbasci* (↓ 28%), *Phytomyza conyzae* (↓ 38%) and surprisingly, *Phytomyza ilicis* (↓ 23%) were also poorly recorded during 2018.

Each year that passes will allow a much more accurate understanding in terms of distribution and population trends so please do keep sending in your records, even for good old *Phytomyza ilicis*, as every one is extremely valuable.

The *Provisional Assessment of the Status of Acalyptratae flies in the UK* was published in December 2016, just prior to the NRS been launched.

In the assessment, only two species were accorded conservation status (*Phytoliriomyza ornata* and *Phytomyza orobanchia*), this been due to a lack of available data which permitted distribution and conservation status to be clarified for all species. With the inception of the NRS, hopefully a more detailed assessment can be commissioned in the future.

## SOCIAL MEDIA

### TWITTER STILL A POPULAR POINT OF CONTACT

Currently, the NRS Twitter account has 378 followers, many of which prefer to contact the NRS via this medium.

During the year, over 400 tweets were sent, covering subjects such as replying to ID queries, advising of species to look out for and answering Vice County record requests. Tweets which highlight specific species to look out for are always popular and often result in a surge in records of that particular species.

Earlier in the year, the NRS made people aware of how to spot the larval signs of *Phytomyza krygeri*, a species which feeds in the seed pods of Columbine (Aquilegia). At the time, there were only three records of this species in the NRS database, yet within a couple of days of posting the message, 11 records were submitted, all being new Vice County records.



Larval signs of *Phytomyza krygeri* © Barry P Warrington

The same level of response was achieved when the mines of *Liriomyza pusilla* on Daisy were pictured and discussed.



Larval mines of *Liriomyza pusilla* © Barry P Warrington

In 2019, the NRS will continue to send out messages to make people aware of what to look out for. Hopefully, these will keep resulting in a rush of records for each species covered!

During the year, in total, over 500 ID requests were sent into the NRS, by email or Twitter. All of these were answered extremely promptly, which hopefully was appreciated by all.

Social media was also used to publicise the *Host Plant Genera of the British Agromyzidae* provisional checklist. The checklist has been distributed to over 70 people, ranging from amateur naturalists in Jesmond to Molecular Scientists in Japan.

The checklist will be updated periodically, as new host plants and Agromyzidae species are regularly discovered.

## FEEDBACK AND SUGGESTIONS

### GET IN TOUCH!

The NRS would love to hear any suggestions you may have; be that relating to the verification process, newsletter ideas or something else.

Unfortunately, the NRS website has not progressed as much as it was hoped, the amount of time needed to work on this is substantial. However, over time, the website will be enhanced and be a valuable resource to those interested in the Agromyzidae.

Finally, as always, a big thank you to everyone who has and continues to contribute to the NRS – keep up the good work folks!

## CONTACT

IF YOU HAVE ANY QUESTIONS OR WOULD LIKE TO KNOW MORE ABOUT THE SCHEME, PLEASE DO GET IN TOUCH WITH US;



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