

**ESSEX MOTH GROUP
ANNUAL NEWSLETTER
2021
COMPILED BY DOUGAL URQUHART**



**BEAUTIFUL MARBLED – ANDREW RAYBOULD
7/8/2020 BOREHAM / GREAT LEIGHS**

NEWSLETTER INTRODUCTION

DOUGAL URQUHART

Welcome to the annual newsletter of the Essex Moth Group. The Group was first formed in 1996 and is now entering its 25th year. This newsletter is the biggest one yet produced, running to 77 pages and over 300 photographs!

The newsletter is important to the Essex Moth Group and shows the important moth recording work that members carry out across the county of both the common species and the scarcer species too. The newsletter also allows other members to share their account of the previous mothing season, to share their sightings as well as their moth images too.

As group co-ordinator, thank-you to all those members who have contributed an article for this newsletter. It's great to see the variety of reports from around the county ranging from the experienced members to the beginners to mothing. There are some fascinating accounts and some great moths described in the reports, illustrated with some excellent images. The newsletter is a helpful way of seeing various trends in moth populations as new species spread across the county, as well as reading about those species that are declining in numbers. All the reports from around the county in the newsletter are summarised each year in the Moth Highlights report published in the Essex Field Club's annual journal of the Essex Naturalist.

I trust members will find this newsletter an interesting read. The articles have had very little editing and are read as they were sent in. All images have been credited, usually to the right-hand side of the page with the initials of the photographer.

Apologies in advance for any spelling or grammar errors especially with the scientific names!

If you want to share any other ideas about the Moth Group, you can contact me – Dougal Urquhart as the Moth Group coordinator on 07494866157 or at – dougalurquhart57@gmail.com;

Information about the Essex Moth Group can be found on the Essex Moth Group website at www.essexfieldclub.org.uk/portal/p/Essex+Moth+Group. Help is needed with keeping these pages updated.

At present the moth County Recorder for Essex is Peter Harvey and whilst Peter is more than happy to continue to deal with records, we need a moth specialist to come forward to manage identification requests and organise and promote recording in the county.

Contact Peter at: grayspeterharvey@gmail.com;

ESSEX MOTH GROUP FACEBOOK PAGE

The Moth Group Facebook page was started in July 2017 by Simon Wood and has been well used and visited by many members and other moth enthusiasts. Plenty of moth pictures have been posted both of known and unknown identity, providing opportunities for discussion – which is exactly what it is there for.

As of February 2021, the Group had 283 members who had joined – 100 of those joining in the last year.

This is an informal discussion group relating to all things mothy within Essex, UK, VC18 and VC19. All sightings and identification queries are very welcome. When posting a photograph, it would be most helpful to have an idea of the size of the moth, whether at rest or wings-span and of course a date and location for the record.

ESSEX MOTH GROUP ANNUAL MEETING 2020

The Moth Group held its 24th annual meeting at the Green Centre, Wat Tyler CP on Saturday 22nd February 2020 - the seventh year it has been held at this venue. As in recent years the attendance was again about forty members, who came along to hear a variety of moth related topics from Essex and further afield. The Group was fortunate it was able to hold the meeting a month before the national lockdown took place.

The main speaker was Greg Bond, a former Essex resident, now living and mothing in Norfolk, as a former Moth Officer for the Norfolk Branch of Butterfly Conservation, he told us about the interesting variety of moths in Norfolk and comparing the status of some species with their status in Essex. Passionate wildlife patch watcher Jono Forgham gave us a talk about his mothing around his local parish of Little Hadham in Hertfordshire. Graham Ekins described the moths of Andalucía and Portugal, then Andrew Raybould gave us a medley of moths under Moth Potterings, closer to home Graham Bailey told us about Essex's mothing hotspot of Canvey Wick before Dougal finished off the day with a few Essex caterpillars.

ESSEX MOTH GROUP ANNUAL MEETINGS

Members will know that the Covid pandemic put paid to any kind of indoor meeting during the winter period 2020 /21. The planned annual meeting of the Moth Group should have taken place in February 2021 but didn't happen, this would've been the Group's 25th annual meeting.

Hopefully when we all jabbed up with vaccine, the restrictions are lifted and we come out of lockdown, we can plan the next annual meeting for February 2022. It would be nice to hear how we can mark this special occasion of our 25th annual meeting.

MOTH GROUP ACTIVITIES 2020

There were no organised outdoor moth trapping sessions in the county during 2020 because of pandemic restrictions. There was reduced moth recording carried out in the wider countryside compared with previous years. Most moth recording was done by members in their own gardens.

The Moth Group usually has a stand at the Essex Field Club's annual social and exhibition at Wat Tyler in early December but this was cancelled.

NATIONAL MOTH NIGHT

8TH-10TH July 2021

The theme for this year's Moth Night is reedbeds and wetlands which provides a wonderful opportunity to showcase the importance of these habitats for insects at the height of the summer.

Records can be posted on the Moth Night website.

Moth Night is organised by Atropos, Butterfly Conservation and the UK Centre for Ecology and Hydrology.

As you will recall it was agreed last AGM to (re)form the Essex moth identification verification committee with a view to regularising the process of confirming identifications of scarce and rare species in Essex as well as to consider how best to assist Peter Harvey in the role of County recorder that he currently holds. Unfortunately, COVID 19 rather scuppered our plans and the first meeting never happened and matters have been held in abeyance. However, it is our intention to push things forward as soon as we are able.

In the meantime, for those who use the Facebook Group to get identifications confirmed, please continue to note on your records should identifications be confirmed for you. That way, in the future when the verification process is up and running, we will not have to revisit these records.



REG FRY – 1939 - 2020

The Moth Group has sadly lost one of the original members who helped start up the Group in 1996.

He had a life-long passion for butterflies and moths and spent a good part of his life documenting the life cycles of butterflies and moths.

Reg regularly attended the annual Moth Group meetings when they were held at the Lawford Scout's Venture Centre – just along the road from where he lived. His illustrated talks were a chance to look at moths through the lens of the microscope and admire the finer details of eggs and larvae with his stunning photographs.

He was one of the moderators for the Moth Group's Yahoo email group up until the last couple of years.

REG FRY – A TRIBUTE BY JOHN HALL

Reg Fry is legendary to anyone who is fascinated by butterflies and moths. His website www.ukleps.org; contains over 12000 superb photographs of no less than 2084 species of lepidoptera which show not just the adults but the eggs, caterpillars and pupae – the place to go if you want to identify any stage in the life history of UK species.

Sadly Reg died on 24th June 2020 following a few days in hospital. He had been struggling with a debilitating lung condition for several years which required continuous supplies of oxygen but this did not stop his zest for life and he continued to take superb photos and maintain the website.

Reg was born on 8th May 1939 in Thame, Oxfordshire and his birth date was etched in history in 1945 as his sixth birthday was VE day, marking victory for the allies in Europe. On the 75th anniversary in 2020 several residents of Lawford in north Essex, where Reg lived with his wife Wendy, went along to sing Happy Birthday.

Reg's lifelong interest in butterflies and moths started when he was thirteen years old when his mum brought an Eyed Hawkmoth home from the bakery where she worked in Bournemouth. To his amazement it laid a large number of eggs and Reg set about learning how to rear the eggs through to caterpillars – several pupated and emerged as adult moths. Reg would repeat this rearing process many times throughout his life, taking and publishing many excellent photos which would blossom into his website.

Entomology was his consuming hobby and Reg became involved in the Amateur Entomologists' Society (AES), became its treasurer whilst his wife organised the publications, and later he was honoured as a Fellow of the AES. As his hobby developed so did his career. Reg started work in a bicycle repair shop at fifteen. At eighteen he joined the General Post Office and worked his way up the ranks by merit to become British Telecom's Chief Engineer for East Anglia. By the 1980's Reg and his family were living in Essex and he took early retirement when he was 49 which gave him more time for his family and his entomology. Reg also developed an early interest in home computers such as "Triton" and "Commodore 64" and this interest and his photographic skills would later support his publications and website work.

Reg and his family enjoyed their gardens in the many areas that they lived over the years and were often equipped with a moth trap and a butterfly net when they went on their various holidays around the UK. Entomology obviously rubbed off on the grandchildren because his grand-daughter is thinking of becoming a forensic entomologist!

In 1991 Reg compiled what is still the bible for insect conservation: *Habitat Conservation for Insects – a Neglected Green Issue*, published well before its time by the AES and he was very proud that Prince Charles wrote the Foreword to this book. In 1996 *A Guide to Moth Traps and Their Use* was published which needed a second edition by 2001. These books and his website are a tremendous legacy to Mr Fry's meticulous work and there is an onus on all entomologists that this legacy is treasured into the future.

The importance of Reg's work was highlighted recently when a speculative developer tried to gain planning permission to build 110 houses on Lawford Tye Field just to the rear of Reg's garden. Reg was incensed that such a biodiverse site could be lost to buildings.

Not well enough to run his own Robinson light trap, I ran it for him with his wife judiciously switching it on and off. In 2018 we amassed first hand records of over 200 macro-moth species which were utilising the proposed development site; Five of which are Nationally Scarce; 22 of which are of Local Significance and 27 of which are Biodiversity Action Plan (BAP) species cited in Section 41 of the NERC Act. What is more, with the help of the local moth enthusiasts called the Mothketeers, we demonstrated that one of the Nationally Scarce species, the Lunar Yellow Underwing was breeding on the site. I used to post parcels of fresh grass through Reg's letter-box every day so that he could apply his life-long skill of rearing the caterpillars that we found. The evidence we presented to the Public Inquiry was found to be both "credible and persuasive" and added significant weight to the Planning Inspector dismissing the development proposal thereby saving Lawford Tye Field from bricks and concrete. Even in his 80th year Reg, supported by his wife and family, was helping us tackle inappropriate habitat destruction – a lesson for professional and amateur entomologists alike as to the worth of their calling.

To his family Reg was a thoughtful, loving husband, dad and grandpa who lived life to the full; to conservationists he was the champion for moths and butterflies. On behalf of Lepidoptera and environmentalists everywhere, thankyou Reg for your passion and support for the natural world.

John Hall MBE- Mothketeer and former CEO of Essex Wildlife Trust, with the help of Reg's wife Wendy.

A single 125W MV Robinson trap was operated in the garden throughout the season, with an additional 15W actinic trap operated from the beginning of May until the end of October. Regularly recorded species not noted this year included **Vestal** *Rhodometra sacaria*, **The Gem** *Nycterosa obstipata*, **Feathered Brindle** *Aporophyla australis*, **Bordered Straw** *Heliothis peltigera*, **Small Mottled Willow** *Spodoptera exigua* and **Waved Black** *Parascotia fulginaria*.

Table 1. Monthly totals of the more regular immigrant species.

	J	F	M	A	M	J	J	A	S	O	N	D	T
Diamond-back Moth <i>P. xylostella</i>	0	0	0	0	10	173	75	17	1	2	12	0	290
*European Corn-borer <i>O. nubilalis</i>	0	0	0	0	0	5	17	2	4	0	0	0	28
Rusty-dot Pearl <i>U. ferrugalis</i>	0	0	0	0	0	0	0	1	3	13	8	0	25
Rush Veneer <i>N. noctuella</i>	0	0	0	0	0	0	0	0	0	1	0	0	1
Humming-bird Hawk-moth <i>M. stellatarum</i>	0	0	0	0	0	0	5	1	0	1	0	0	7
Silver Y <i>A. gamma</i>	0	0	0	1	9	24	34	121	0	3	9	0	201
Scarce Bordered Straw <i>Helicoverpa armigera</i>	0	0	0	0	0	0	0	0	0	1	0	0	1
*Tree-lichen Beauty <i>C. algae</i>	0	0	0	0	0	0	33	60	0	0	0	0	93
Delicate <i>M. vitellina</i>	0	0	0	0	0	0	0	1	17	3	0	0	21
Pearly Underwing <i>Peridroma saucia</i>	0	0	0	0	0	0	0	0	0	3	0	0	3
Dark Sword-grass <i>A. ipsilon</i>	0	0	0	0	1	5	10	15	2	0	1	0	34

*Records likely to be associated with local breeding populations.

New micro's for site were as follows:-

Comfrey Ermel *Ethmia quadrillella* One on 1st August.

Eyelet Sober *Thiotricha subocellea* Single on 22nd June.

Notch-wing Neb *Monochroa suffusella* One on 8th July.

Humped Groundling *Psoricoptera gibbosella* One on 13th August.

Pine Cosmet *Batrachedra pinicolella* Single on 15th July.

Dusky Plume *Oidaematophorus lithodactyla* 4 between 22nd July and 29th November.

Carrot Lance-wing *Epermenia aequidentellus* One on 29th June.

Small Saltern Conch *Gynnidomorpha vectisana* One on 8th July.

Blotched Marble *Endothenia quadrimaculana* Single on 9th July.

Twin-spot HoneyMoth *Lamoria zelleri* One on 15th July.



CARROT LANCE-WING



COMFREY ERMEL



DUSKY PLUME



EYELET SOBER (C.A.)



HUMPED GROUNDLING



NOTCH WING WEB



PINE COSMET



TWIN-SPOT HONEY MOTH

Notable micro's were as follows :-

Small Purple Flat-body *Agonopterix purpurea* Singles on 24th March and 9th August.

Powdered Flat-body *Agonopterix curvipunctosa* One on 10th March.

HollyHock Seed Moth *Pexicopia malvella* 8 from 27th June.

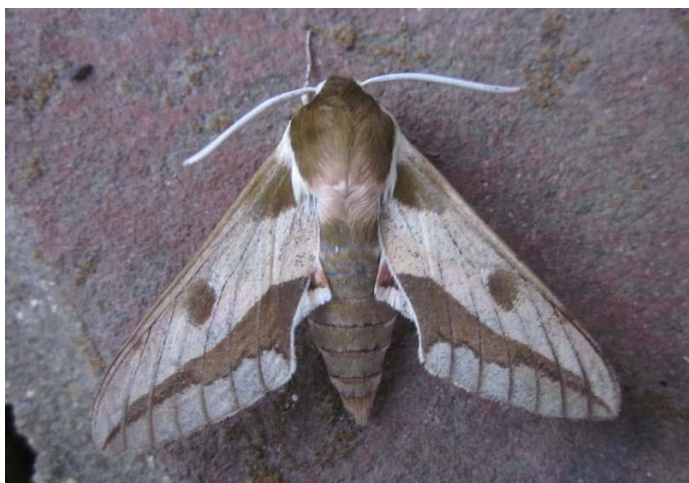
Scarce Cosmet *Mompha jurassicella* Singles on 10th and 13th March.

Mugwort Bell *Eucosma metzneriana* 6 on 13th June.

Scarce Oak Knot-horn *Acrobasis tumidana* Singles on 30th June and 12th August, 4 on 10th August and 2 on 15th August.

Box Tree Moth *Cydalima perspectalis* 7 between 9th and 23rd September.

Dark Bordered Pearl *Evergestis limbata* Single on 30th June.



SPURGE HAWKMOTH 30th June



SPURGE HAWKMOTH 11th August (C.A.)

New macro's :-

Poplar Lutestring *Tethea or* One on 7th August.

Spurge Hawk-moth *Hyles euphorbiae* Singles on 30th June and 11th August.

Gypsy Moth *Lymantria dispar* Single male on 11th August and 2 on 14th August.

Beautiful Marbled *Eublemma purpurina* Singles on 31st July, 10th August and 11th August.

Oak Rustic *Dryobota labecula* One on 5th November.



BEAUTIFUL MARBLED

BEAUTIFUL MARBLEDS

Notable macro's :-

Sloe Carpet *Aleucis distinctata* One on 12th March, a disappointing year for this species.

Jersey Tiger *Euplagia quadripunctaria* Single on 31st July.

Hoary Footman *Eilema caniola* One on 31st July.

Pigmy Footman *Eilema pygmaeolo* Singles on 1st and 3rd August.

Plumed Fan-foot *Pechipogo plumigeralis* Singles on 8th July, 27th July and 1st of August.

Golden Twin-spot *Chrysodeixis chalcites* Singles on 10th and 26th August.

Dewick's Plusia *Macdunnoughia confusa* A total of 14 between 13th July and 16th August, quite likely to involve smaller numbers as counts include nectaring individuals seen on consecutive nights, but two individuals seen on 19th July.

Reed Dagger *Simyra albovenosa* Two on 9th July.

Toadflax Brocade *Calophasia lunula* Single adults on 19th July and 7th August, the latter by torchlight nectaring on lavender.

Clancy's Rustic *Caradrina kadenii* Singles on 26th September, 27th September and 8th October.

Fisher's Estuarine Moth *Gortyna Borelii* A total of 15, 9 of these to light traps the remainder on Hog's Fennel in the garden.

Common Wainscot *Mythimna pallens* Good numbers were recorded on three dates during August, 257 on 9th, 500+ on 10th and 400+ on 14th.

Obscure Wainscot *Leucania obsoleta* A total of 51 from 1st June.

Sand Dart *Agrotia ripae* Singles on 26th May and 19th June.

Kent Black Arches *Meganola albula* 4 between 9th July and 29th July.



GOLDEN TWIN-SPOT



OAK RUSTIC

(C.ATKINS)

Additional local records trapped by Chris Balchin at Wall Street, Colne Point.

Clifden Nonpareil *Catocala fraxini* One 15th September resting on wall close to trap.

Radford's Flame Shoulder *Ochropleura leucogaster* One on 18th November.

Several Southern **Migrant Hawker** *Aeshna affinis* occurred in the 125w mv trap,

2 on 8th August plus singles on 12th and 20th August.

A single **Migrant Hawker** *Aeshna mixta* appeared in the 15w actinic trap on 17th September.

MOTHING IN LITTLE CLACTON

GAVIN PRICE

I fell into serious mothing because of the lockdown. I had got a new camera which I intended to use to increase my photography of Butterflies, but was then told to shield for three months. With loads of time on my hands I was able to revive a childhood interest in moths, and well things just took off. By the 4th May I had purchased a small trap. I then built a bigger one, got a third to replace the first and so on. I have been amazed by the variety of moths that I have seen. It has opened up a whole new world of interest for me and given me enormous pleasure. I have only trapped in my rear garden in Little Clacton VC19. Although my garden is only modest I am in a semi-rural location with some large gardens either side of me, with a large Oak, Silver Birch, Pine Ash and Beech trees nearby.

I had always loved Hawk Moths and trapped my first, a **Lime Hawkmoth** on the 11th May. In the end I was lucky to see eight different species of Hawk Moth in the garden over the year. I love them all, but I suppose the most special was the **Bedstraw Hawk-Moth** that was trapped on the 14th August.



BEDSTRAW HAWKMOTH

That said I have seen the beauty in even the plainest of moths and have been amazed by the micro moths. I have been lucky to see rarities such as the **Fishers Estuarine Moth**. I live only a few miles from one of the rare locations they can be found. I was stunned when the first arrived on the 14th September followed by two more a week later. This prompted me to research the species further and hopefully contribute next year to the program monitoring its local habitat.



FISHER'S ESTUARINE MOTH



FISHER'S ESTUARINE MOTH (G.PRICE)

Just as the season was winding down, I had an **Oak Rustic** another Essex rarity, trapped on 2nd November. A rather worn specimen but verified by Ben Sale and Graham Ekins for me.



OAK RUSTIC

There have been many other highlights, too numerous to list here but I must mention the fun I had rearing the **Puss Moth** larvae from the eggs my sole **Puss Moth** left me, and posting a photo diary about them on the Essex Moth Group Facebook page. Hopefully, it will continue again when the pupae emerge next year.



PUSS MOTH CATERPILLAR

As a novice I never expected the volume of moths I was going to trap. Indeed, on one night, the 15th August, I was almost overwhelmed with 780 moths including 480 **Common Wainscot** alone. In the early days I was spending so long identifying my macro moths I was unable to deal with micros and just photographed as many as I could and released. This allowed me to identify many new species in the last few weeks.

One micro that arrived on that night was *Ethmia quadrillella*, verified by Tim Green and very rarely reported in Essex, so the photographing was well worth the effort.



Ethmia quadrillella (G.PRICE)

So, in the end I recorded 7,786 moths of 204 macro and 71 micro species. I know this is just the start for me. I missed the beginning of the year and I'm sure I also missed many micros and Pugs through inexperience. I has been a great experience so far and I cannot wait for the weather to warm.

Finally, I have to say thanks to all those who have helped me with advice and identifications. Your willingness to assist novices is one of the great strengths of this group.

Trapping in my modest garden in Rowhedge on 29 nights between 4th April and 8th November resulted in 2161 moths of 315 species. This included 59 new species for the site, 33 micros and 26 macros, making a total of 565 species recorded at the site since 2013. The best trapping evening was 12th August, on which 306 moths of 88 species were recorded.

The undoubted highlight for me was my first **Clifden Nonpareil** trapped on 15th September, whether a migrant or locally established, it coincided with records from a number of other recorders. There is certainly a fair amount of Aspen a short distance away in Rowhedge Pits, so a local colony is a possibility.



CLIFDEN NONPAREIL

*Chilo phragmitella*

Other species new to the site included **Clancy's Rustic**, **Silky Wainscot**, **Twin-spotted Wainscot**, *Chilo phragmitella*, and thanks to our proximity to coastal habitats, **Saltern Ear** and *Phalonidia affinitana*.



SALTERN EAR

(N.Harvey)

Now considered nationally Vulnerable, **White-line Dart** was new for the site on 8th August and of the moths with a similar conservation status now, **Pale Eggar** was present on three occasions, **Lackey** on two occasions, **Sprawler** on two occasions, and **Oak Hook-tip**. Of the Near Threatened macro species, there were records of **Frosted Green**, **Dusky Thorn** (two occasions), **September Thorn**, **Beaded Chestnut**, **Sallow**, and **Latticed Heath**.

Eight Nationally Scarce micro species were recorded: *Platyedra subcinerea* (new for the site), *Bryotropha desertella* (new for the site), *Coleophora salicorniae*, *Elegia similella*, *Pempelia genistella* (new for the site), *Euzophera cinerosella* (new for the site), *Ancylosis oblitella* (two records, new for the site) and *Pediasia contaminella*.

The garden doesn't seem to generate large numbers of records of migrant species, but those that were new for the site this year included *Cydia amplana*, **Rusty-dot Pearl**, **Vestal** and **Langmaid's Yellow Underwing** on two occasions.

Following the review of macro moth national species statuses in 2019, some of the formerly Nationally Scarce or Red Data Book species that have experienced an upsurge are now considered to be Least Concern. Those recorded during the year include: **Small Ranunculus**, **Toadflax Brocade** (with caterpillars on Purple Toadflax in the garden for the first time), **Festoon**, **Great Oak Beauty**, **Buttoned Snout**, **L-album Wainscot** (on six occasions) and **Lunar Yellow Underwing** (new for the site).

Of the perhaps less welcome species, **Gypsy Moth** was new to the site (two records) and **Box-tree moth** increased markedly in frequency and abundance, with 136 individuals over nine evenings, peaking at 53 on 17th September.

Elsewhere in the county, collection of leaf mines and larval cases yielded records of the following, rarely recorded species:

- *Ectoedemia luisella*, on a Field Maple samara from landscaping planting in North Benfleet;
- *Coleophora lusciniapennella*, an occupied case on Sallow, Elmstead Market;
- *Phyllocnistis xenia* (Nationally Scarce), distinctive mines on White Poplar at Burnt Mills, Basildon;
- *Bucculatrix maritima* (Nationally Scarce), an occupied mine on Sea Aster, Colchester Hythe Marshes;
- *Stigmella samiatella*, mines on Sweet Chestnut in Donyland Woods;
- *Orthotelia sparganella*, Hannikins Meadow, mines on Bulrush;
- *Eriocrania sparmanella*, mine on birch, Little Burstead;
- *Ectoedemia septembrella*, a mine on Hairy St John's-wort at Crays Hill, seemingly a first record for South Essex
- *Scrobipalpa nitentella* (Nationally Scarce), occupied mine on Sea Purslane, Vange Creek.

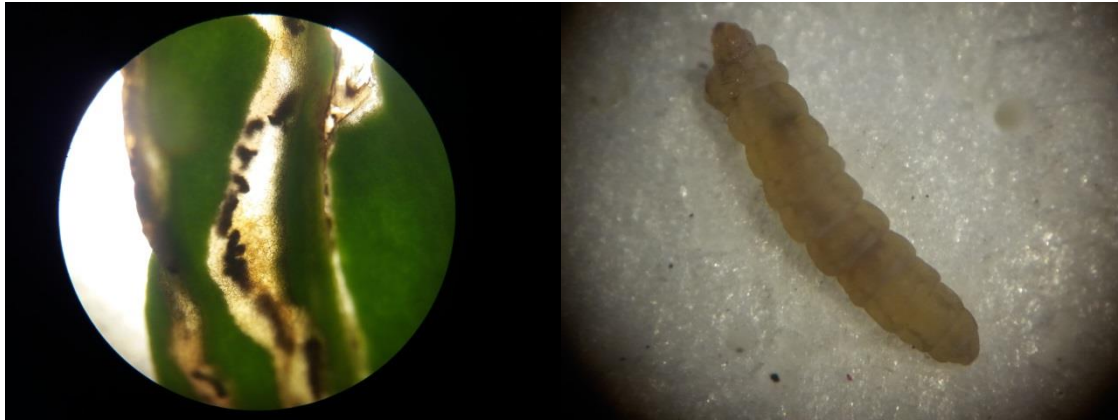


Coleophora lusciniapennella occupied case



Scrobipalpa nitentella, larva and mine

(N.Harvey)



Bucculatrix maritima, mine and larva

A productive lockdown walk to Friday Woods in May resulted in the discovery of **Speckled Yellow**, *Aroga velocella* swept from acid grassland containing its food plant Sheep's Sorrel, *Cydia ulicetana*, swept from Gorse, and *Micropterix tunbergella*, which appears to be the first record post-1990.

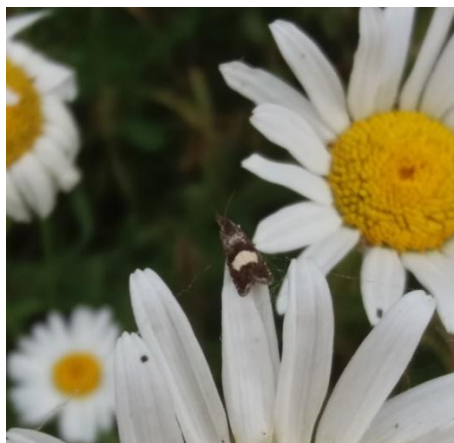


Micropterix tunbergella



Aroga velocella

Other notable imago captures included *Dichrorampha sequana*, on a road verge just outside Little Waltham, and *Micropterix aruncella*, within a streamside willow plantation at Chatham Green.



Dichrorampha sequana

(N. Harvey)

Moth trapping continued in the West Mersea back garden through the main mothing months on ninety nights between 7th March and 26th November. The only break was a two and a half week break late September/ early October for a holiday. A total of 202 macro moth species were recorded, which is nineteen more species than the previous year but involved forty more sessions.



SLOE CARPET



ALDER MOTH



Coleophora amethystinella

A **Dotted Chestnut** on the 4th April was the first interesting moth of the season, even if they've become an annual sight in spring in recent years. A **Sloe Carpet** on the 15th April was a first for the garden and a real surprise for here. In May *Coleophora amethystinella* was seen on three nights in the third week while a **Cream-spot Tiger** was a colourful addition on the 26th along with the first Island record of **Alder Moth**. A **Toadflax Brocade** was finally added to the garden list on the 28th – caterpillars were seen nearby a few weeks later on purple toadflax. Two **Small Elephant Hawkmoths** made an appearance on the 11th June along with an *Evergestis limbata* – the first night of eight different nights for this species during the season and probably established locally now. **Beautiful Hook-tips** were noted on the 12th and 13th June.



The most unexpected and striking catch of the season was a fresh **Scallop Shell** on the 15th June. The only two I've seen previously in Essex were both in Chalkney Wood in July 2006 and then in July 2014, both looking faded.

(D.U.)

A **Clouded Brindle** on the 18th June was the first record for the Island and a **Bordered White** was noted on the 2nd. On the 24th June **Small Elephant Hawkmoth**, **Cypress Carpet**, **Sand Dart** and *Evergestis limbata* were caught, while the next night **Clancy's Rustic**, **Cypress Carpet** and *Dasycera oliviella* turned up. A **Clancy's Rustic** was seen again on the 26th along with a **Beautiful Hook-tip** while a **Lilac Beauty** was on the 30th June.



CLOUDED BRINDLE



SAND DART



CLANCY'S RUSTIC

A **Leopard** was on the 11th July, **Brown-veined Wainscot** and *Evergestis limbata* on 13th and a **Festoon** on the 16th July. The second **Toadflax Brocade** for the garden was noted on the 17th also that night **Oak Eggar** and the pretty *Metalampra italica*. On the 23rd *Thiodia citrana* was trapped, **Cream-bordered Green Pea** on the 29th July while a **Plumed Fan-foot** was a nice surprise on the 30th. A **Gypsy Moth** was caught on the 31st July followed by two on the 5th August. On the 7th August a **Plumed Fan-foot** was trapped, as were a **Cypress Carpet**, 15 **Tree-lichen Beauties** and a **Saltmarsh Plume**. Trapped on the 9th August were *Dasycera oliviella*, *Evergestis limbata* and the first **Rusty Dot Pearl** for the year. More **Tree-lichen Beauties** were on the 11th August with 15, another *Evergestis limbata* on the 12th while a small influx of **Silver Y's** peaked at 14 on the 15th, also a **Cream-bordered Green Pea**. Another **Cypress Carpet** on the 23rd August, **Sandhill Rustic** on 28th, **Cypress Carpet** and **Old Lady** on 8th September with another **Old Lady** on the 15th September as was a **Plumed Fan-foot**.



PLUMED FAN-FOOT



Metalampra italica



Thiodia citrana

(D.U.)

The first of the autumn **Clancy's Rustics** appeared on the 17th – the first of ten nights up to 20th October when it was recorded, peaking with three on 18th September and on 20th October. This is the second year here that **Clancy's Rustic** has been seen both in early summer and again in the autumn, suggesting the two generations are breeding locally now.

Other autumn highlights were a **Vapourer** on the 17th September, another **Plumed Fan-foot** on the 18th, **Old Lady** on the 19th September. A **Merveille du Jour** was noted on the 17th October, **Dark Swordgrass** on the 20th October and the dainty *Palpita vitrealis* on the 30th October. On a cloudy and drizzly 8th November a **Merveille du Jour** and **Cypress Carpet** were joined by a few migrants like *Palpita vitrealis*, **White-point**, **Silver-Y**, **Rusty-dot Pearl** and a few **Diamond-backed Moths**. Three **Rusty-dot Pearls** were noted on the 12th November while the last mothing of the year on the 26th November produced a **December Moth**.



Privet Hawkmoth caterpillar found in West Mersea by David Nicholls munching through the leaves on a lilac bush in his neighbour's garden on 17th July.

(D.N.)

Toadflax Brocade caterpillar feeding on purple toadflax in David Nicholls' garden in West Mersea. A close inspection of the plant revealed 28 caterpillars on 30th June.

(D.N.)



Marion Potifar logged a number of moths coming to her patio light in East Mersea. **Tree-lichen Beauty** – left, on 1st August

Sallow – right, on 28th September.

Hummingbird Hawkmoths were noted during the day on 28/6, 15/8, 30/8, 6/9 (M.P.)



This **Emperor** caterpillar was found by the seawall on Old Hall Marshes RSPB reserve by John Fell on 17th July 2020

(J.F.)

Novice Moth Man Report No. 3

Well, another year has passed, and what a year it has been! We have had all the extremes the weather could throw at us and on top of that several lockdowns. Being at the upper end of the age bracket it has meant staying at home. Luckily I have had the moths, which have kept me busy and helped pass the time in the spring, summer and autumn, but not so many moths in the winter, has meant time has passed a little slower.

In all I trapped 306 times, had 12,257 moths and 548 species.

This excessive trapping meant that the area on my lawn, where I place my trap, had become very worn. I had to purchase some paving slabs to improve the situation – photo attached.

(A.U.)



One highlight of the year was seeing a **Clifden Nonpareil**, my first. However it was not trapped by me but courtesy of my brother-in-law.

Another highlight was the fact that the **Cypress Carpets** had another very good year, being trapped on 14 nights.

A further very pleasing highlight was the **Early Grey**, trapped on 14th December 2020, which is the earliest record for Essex. Many thanks to Tim Green for the ID and information. It also turned up again on 15th December.

Another notable moth was *Acleris logiana*, which I trapped on 6th November 2020. This micro is not very common in Essex but now seems to be increasing in numbers.

I would like to take this opportunity to thank all the senior moth experts for their help and guidance throughout the year. Although my ID skills are improving, I still need their help!

Having only started moth trapping in the spring of 2019, last year was my first full year of trapping and with the odd times we find ourselves in I was actually able to trap more frequently than I would have otherwise. This was perhaps a double-edged sword though - more frequent trapping but less chance of keeping up with identifying and recording! I am still not up-to-date with my 2020 records but can say I have logged in excess of 350 species.

I trapped at home a little over 100 times, upgrading to a bought trap (a Skinner trap with 20W Actinic and 22W Synergetic Green bulbs) in time for the moth season to kick off properly. This did mean on some nights I actually ran the new trap and my old homemade Robinson trap). I also found myself on some evenings chasing moths around trying to net them, with fairly limited success, I may add. My giant 'malaise trap' that is my old greenhouse, with its few broken panes at low level, was particularly good at catching many moths (as well as other inverts), particularly micro moths. Some invariably end up as spider meals though.

As I am still very new to the world of mothing I naturally caught many moths that I had never seen before. All these 'lifers' were highlights to me but far too numerous and common to list here so only included some.

The best moth of the year had to be *Zelleria oleastrella*, a moth not previously recorded in Essex. This micro moth was found by my moth trap on the evening of 9th June and potted up to check the next day. A fairly worn specimen with not a lot of markings to it, I had to rely on others (Tim Green and Simon Wood) to identify it. Another single specimen, and a less worn individual, turned up on the evening of the 30th June, again potted for checking the following day. This moth is a relative newcomer to the UK with the larvae feeding on Olive. I have yet to work out who is growing Olive near me.



Zelleria oleastrella #1



Zelleria oleastrella #2



Psychoides filicivora

Another interesting moth seen was *Psychoides filicivora*, one of the many moths found trapped in my greenhouse during the year. This moth, seen on 6th May, has only a small number of records in Essex. The larvae feed on fern.

One of my biggest goals for the year was to add a Hook-tip to my garden list. Not sure why! So I was delighted to get my first (a **Beautiful Hook-tip**) on the 18th June. As can often be the way, I trapped this species fairly regularly after and so the moth became less exciting. However, I did also trap a **Pebble Hook-tip** and an **Oak Hook-tip**, both on 26th July; the latter was trapped several times after. So my Hook-tip wish was definitely answered.



BEAUTIFUL HOOK-TIP



PEBBLE HOOK-TIP



OAK HOOK-TIP

(D.B.)

Another moth that I was keen to see (which was being regularly posted on the various Facebook groups) was *Lyonetia prunifoliella*. I saw loads of the more common *L. clerkella*, both in 2019 and 2020. I even easily found leaf mines and occasional pupae of *L. clerkella* on my apple and cherry trees. I did end up seeing *L. prunifoliella* on 27th August, though I would never have expected to find it as I did, in cop with a *L. clerkella* (photo shows *L. prunifoliella* below and *L. clerkella* above). Let's hope they don't successfully hybridise!



Lyonetia in cop

Ypsolopha mucronell

Ypsolopha scabrella

Stathmopoda pedella

Some other notable micro moth 'lifers' for me, mostly seen just the once, were: *Ypsolopha mucronella* (22nd April); *Rhyacionia pinivorana* (23rd May); Large Tabby (in my kitchen, 3rd June); *Rhyacionia pinicolana* (27th June); *Ypsolopha scabrella* (during day, 17th July); *Chrysoesthia durella* (in my greenhouse, 28th July); *Stathmopoda pedella* (7th August); **Saltmarsh Plume** (7th August); *Ypsolopha sequella* (8th August); *Ypsolopha dentella* (8th August); *Metalampra italica* (first one on 10th August, seen a couple of times after); *Pyrausta purpuralis* (24th August); and *Batia lunaris* (singletons seen several times through the summer).

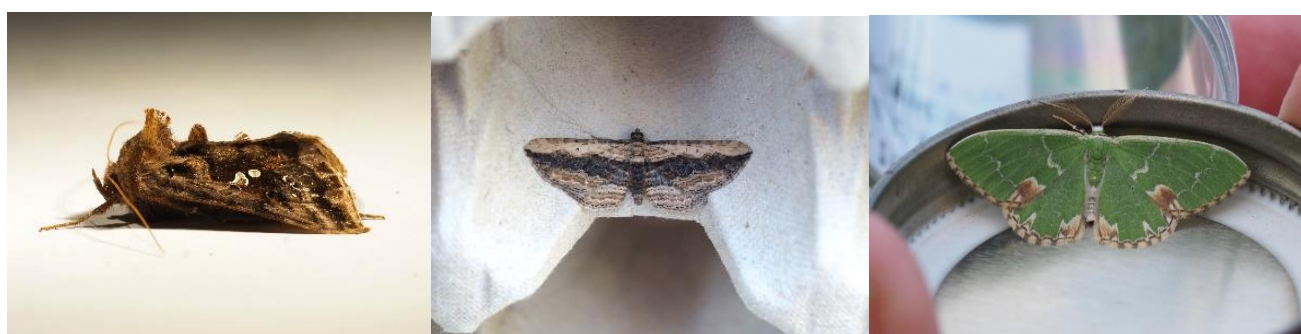


Ypsolopha sequella

SALTMARSH PLUME

Pyrausta purpuralis

And here, in no particular order, are some of the more showy macro moth 'lifers' for me (those with dates were only seen once): **Barred Straw**; **Buff Arches** (23rd June); **Scorched Wing**; **Leopard Moth** (26th July); **Marveille du Jour** (one I was hoping to see and like buses once the first arrived!); **Puss Moth** (28th May); **Clouded Silver**; **Scorched Carpet**; **Iron Prominent**; **December Moth**; **Small Elephant Hawk-moth** (13th June); **Lime Hawk-moth**; **Pine Hawk-moth**; **Beautiful Golden Y** (26th May); **Purple Bar** (5th August); **Small Waved Umber** (1st August); **Blotched Emerald**; **L-album Wainscot**; **Box-tree Moth**, melanic form (a pair, 17th September); and **Red Underwing** (found dead in a spider web, 4th September).



BEAUTIFUL GOLDEN Y

SMALL WAVED UMBER

BLOTCHED EMERALD

(D.B.)

Was nice to see some of the previous year's highlights too (again, dates given for those seen only once): **Orange Moth** (6th July); *Plutella porectella* (20th October); **Chinese Character**; **Toadflax Brocade** caterpillars (on Purple Toadflax); **Waved Black** (7th August); *Gracillaria syringella*; *Dasycera oliviella*; **Herald**; **Tawny Speckled Pug**; **Lime-speck Pug**; *Catoptria pinella*; **Black Rustic**. There were a few from 2019 that I was sad not to see, especially: **Old Lady**; *Agapeta zoegana*; **Vapourer** (though did see a caterpillar on one of my apple trees).



ORANGE MOTH



Plutella porectella



VAPOURER (larva) (D.B.)

I have very much enjoyed the variety of by-catch that moth trapping provides. This is not the right place to detail the 'non-moths' I came across but probably the biggest surprise found inside my moth trap came on 1st July when I found a Comma butterfly.

Finally, it was nice to see the **Angle Shades** and **Oak Eggar** moths hatch out after having reared them through from eggs laid by potted adults in 2019. **Oak Eggar** was another moth that I didn't see in 2020, excepting those I reared. I was also able to rear **Buttoned Snout** from caterpillars collected off one of my Hop plants.

Looking forward to the year ahead, hoping to use some of the new knowledge gained last year as well as pick up some new knowledge. Would also like to get involved with some remote trapping, as I'm sure many of us would. Happy mothing.

OLD LADY CLUSTER

PETER WARD

"While on a rowing boat trip along the Blackwater River near Coggeshall on 5th August, I found, under a very old, small, brick bridge, a gathering or cluster of large-ish brown moths. I would estimate there must have been at least 50 moths, all overlapping each other to form a single mass, with no gaps. Possibly they were a few layers thick as the centre of the group was pretty raised off the brickwork. This was at around midday, and they were there again several days later, although in a slightly different formation. They are completely hidden under a very narrow tunnel, approx 1-2 foot from the waterline, and would be in shade all day. When I looked at them closely, they started quivering en masse." These were later confirmed as **Old Lady Moths**.

(P.W.)



Like many others, I had not expected to be concentrating so much on my garden lepidoptera list in 2020 but the COVID 19 global pandemic had other ideas. The previous two years had seen me setting multiple traps in Hazeleigh Wood (see later). 2020 would instead see me operating with a single 125W MV light throughout the year in my small garden, although I did try a 5W LED a few times, but these perform very poorly where there is light pollution. The garden is on a 1990s housing estate and we are rather blighted by light pollution. The garden is small, no more than 10m x 13m maximum, but we have been slowly converting it to a wildlife garden and have re-established a pond close by the house which proved a big hit with invertebrates in its first year.

In all I recorded just short of 13,000 individuals over the course of the year (albeit that I did not trap much at all in from January to March). A total of about 515 species were recorded of which approximately 135 were new for the garden list which now stands at around 650 species. Note, I am using the words “about” and “approximately” as some species are actually species pairs or groups that require genital dissection to confirm. I have quite a lot of specimens still to determine but can't seem to find the time!

Commonest species by numbers

The top ten most numerous species in the garden were

English Name	Latin Name	No. of individuals
Garden Grass-veneer	<i>Chrysoteuchia culmella</i>	813
Water Veneer	<i>Acentria ephemerella</i>	712
Light Brown Apple Moth	<i>Epiphyas postvittana</i>	665
Box-tree Moth	<i>Cydalima perspectalis</i>	576
Common Wainscot	<i>Mythimna pallens</i>	488
Silver Y	<i>Autographa gamma</i>	475
Vine's Rustic	<i>Hoplodrina ambigua</i>	371
Heart and Dart	<i>Agrotis exclamationis</i>	360
Shuttle-shaped Dart	<i>Agrotis puta</i>	341
Least Carpet	<i>Idaea rusticata</i>	278

Commonest by occurrence

The top ten by number of nights the species appeared in the trap were:

English Name	Latin Name	No. of nights
Light Brown Apple Moth	<i>Epiphyas postvittana</i>	125
Silver Y	<i>Autographa gamma</i>	86
Shuttle-shaped dart	<i>Agrotis puta</i>	72
Vine's Rustic	<i>Hoplodrina ambigua</i>	65
Large Yellow Underwing	<i>Noctua pronuba</i>	63
Heart and Dart	<i>Agrotis exclamationis</i>	62
Pale Mottled Willow	<i>Caradrina clavipalpis</i>	61
Willow Beauty	<i>Peribatodes rhomboidaria</i>	61
Box-tree Moth	<i>Cydalima perspectalis</i>	60
Setaceous Hebrew Character	<i>Xestia c-nigrum</i>	57

Largest average catches per night

(Number of individuals divided by the number of nights recorded)

The top ten by largest average catch per night were

English Name	Latin Name	Average catch
Water Veneer	<i>Acentria ephemerella</i>	19.78
Garden Grass-veneer	<i>Chrysoteuchia culmella</i>	14.78
Box-tree Moth	<i>Cydalima perspectalis</i>	9.60
Common Wainscot	<i>Mythimna pallens</i>	9.04
Lunar Underwing	<i>Omphaloscelis lunosa</i>	8.43
Cloaked Minor	<i>Mesoligia furunculi</i>	7.14
Flounced Rustic	<i>Luperina testacea</i>	5.95
Heart and Dart	<i>Agrotis exclamationis</i>	5.81
Vine's Rustic	<i>Hoplodrina ambigua</i>	5.71
Silver Y	<i>Autographa gamma</i>	5.52

The presence of Box-tree Moth in all three 'Top Ten' tables is all the more remarkable, given that it had not been recorded in the garden until this year. There is evidence to suggest that when the species arrives in an area, there is a massive build-up in numbers as the species takes advantage of all the Box in the area, followed by a rapid crash in numbers as the food plant is largely 'eaten out'.

In all 17 species are represented in the above tables.

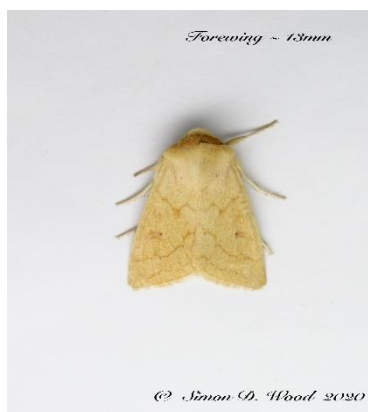
Local species

Over 100 species considered to be local on a national level were recorded and it would be impractical to mention them all here. However, the following were of particular note:

Latin Name	English Name	No. of records	No. of individuals
<i>Calybites phasianipennella</i>		4	4
<i>Zelleria hepariella</i>		1	1
<i>Agdistis bennetii</i>		6	7
<i>Clavigesta purdeyi</i>		2	2
<i>Strophedra nitidana</i>		1	1
<i>Cymatophorina diluta</i>	Oak Lutestring	1	1
<i>Lygephila pastinum</i>	Blackneck	1	1
<i>Amphipoea fuscata</i>	Saltern Ear	1	1 (GD)
<i>Orthosia opima</i>	Northern Drab	2	2
<i>Leucania obsoleta</i>	Obscure Wainscot	5	5



CONVULVULOUS HAWKMOTH

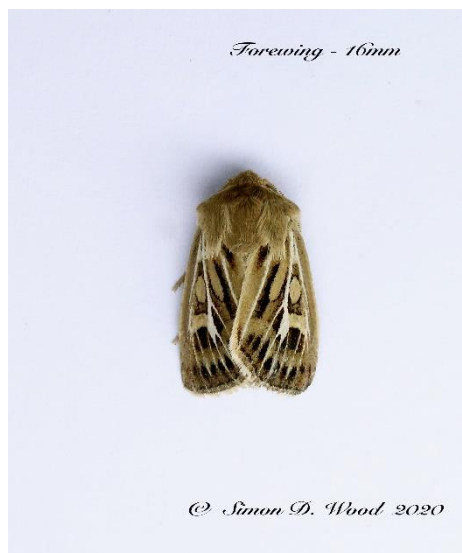


DELICATE



GOLDEN TWIN-SPOT

(S.W.)



ANTLER MOTH



SANDHILL RUSTIC



SCARCE BORDERED STRAW (S.W)

National Scarce A and B species

An impressive 35 species that fall into this category were trapped over the year:

Latin Name	English Name	No. of records	No. of individuals
<i>Ectoedemia decentella</i>		9	9
<i>Nemapogon granella</i>	Corn Moth	1	1 (GD)
<i>Caloptilia cuculipennella</i>		1	1
<i>Phyllocnistis xenia</i>		1	1
<i>Cosmopterix lienigiella</i>		2	2
<i>Platyedra subcinerea</i>		2	2
<i>Gelechia senticetella</i>		1	1
<i>Recurvaria nanella</i>		10	12
<i>Coleophora limoniella</i>		1	1
<i>Mompha sturnipennella</i>		2	2
<i>Stathmopoda pedella</i>		2	2
<i>Thiodia citrana</i>		1	1
<i>Cydia servillana</i>		1	1
<i>Grapholita lobarzewskii</i>		1	1 (GD)
<i>Pammene populana</i>		1	1
<i>Sesia apiformis</i>	Hornet Moth	2	2
<i>Synanthedon formicaeformis</i>	Red-tipped Clearwing	1	1
<i>Synanthedon myopaeformis</i>	Red-belted Clearwing	5	5
<i>Synanthedon vespiformis</i>	Yellow-legged Clearwing	10	17
<i>Apoda limacodes</i>	Festoon	5	5
<i>Elegia similella</i>		2	2
<i>Pempelia genistella</i>		2	3
<i>Ancylosis oblitella</i>		6	7
<i>Vitula biviella</i>		1	1
<i>Evergestis limbata</i>		4	4
<i>Pediasia contaminella</i>		2	2
<i>Scopula emutaria</i>	Rosy Wave	1	1
<i>Hypena rostralis</i>	Buttoned Snout	2	2
<i>Eilema caniola</i>	Hoary Footman	2	2 (GD)
<i>Cucullia asteris</i>	Star-wort	2	2
<i>Luperina nickerlii</i>	Sandhill Rustic	11	24
<i>Globia sparganii</i>	Webb's Wainscot	8	12
<i>Mythimna l-album</i>	L-album Wainscot	27	47
<i>Meganola albula</i>	Kent Black Arches	4	6
<i>Earias clorana</i>	Cream-bordered Green Pea	9	9

The clearwings were attracted in using pheromone lures, as were *Grapholita lobarzewskii* (GD) and *Cydia servillana*.

Red Databook species

Four species were recorded during 2020; all are increasing their ranges and I question how much longer any of them will be considered RDB species:

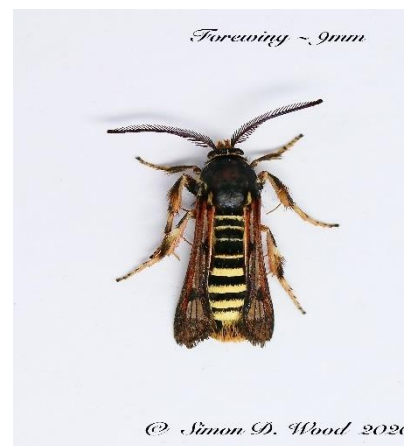
Latin Name	English Name	No. of records	No. of individuals
<i>Lyonetia prunifoliella</i>		5	6
<i>Coleophora amethystinella</i>		5	10
<i>Calophasia lunula</i>	Toadflax Brocade	4	4
<i>Hecatera dysodea</i>	Small Ranunculus	5	6



OAK PROCESSIONARY



DEWICK'S PLUSIA



RASPBERRY CLEARWING (S.W.)

Migrants and new arrivals

Climate change is producing rapid and significant changes in our fauna, and this is obvious from the rapid change in the moths appearing in the UK. Until recently species such as **Tree Lichen Beauty**, **White-point** and **L-album Wainscot** were all scarce migrants or even rarer here. Regular trapping this year has revealed that four species (all new for the garden) are most likely breeding locally, **Oak Processionary**, **Gypsy Moth**, **Dewick's Plusia** and **Golden Twin-spot**. The table below gives details of the principal migrants (I have included all the species mentioned above as it gives an idea of the number occurring) plus **Raspberry Clearwing** (to pheromone) which is rapidly expanding its range from central England.

Latin Name	English Name	No. of records	No. of individuals
<i>Plutella xylostella</i>	Diamond-back Moth	42	65
<i>Pennisetia hylaeiformis</i>	Raspberry Clearwing	3	3
<i>Acrobasis tumidana</i>		1	1
<i>Udea ferrugalis</i>	Rusty-dot Pearl	8	15
<i>Agrius convolvuli</i>	Convolvulus Hawk-moth	6	6
<i>Macroglossum stellatarum</i>	Humming-bird Hawk-moth	3	3
<i>Thaumetopoea processionea</i>	Oak Processionary	4	9
<i>Lymantria dispar</i>	Gypsy Moth	4	4
<i>Eublemma purpurina</i>	Beautiful Marbled	1	1
<i>Chrysodeixis chalcites</i>	Golden Twin-spot	5	7
<i>Macdunnoughia confusa</i>	Dewick's Plusia	23	29
<i>Autographa gamma</i>	Silver Y	86	475
<i>Helicoverpa armigera</i>	Scarce Bordered Straw	1	1
<i>Cryphia algae</i>	Tree-lichen Beauty	24	54
<i>Caradrina kadenii</i>	Clancy's Rustic	6	7
<i>Mythimna vitellina</i>	Delicate	1	1
<i>Mythimna albipuncta</i>	White-point	19	34
<i>Agrotis ipsilon</i>	Dark Sword-grass	3	3
<i>Noctua janthina</i>	Langmaid's Yellow Underwing	1	1 (GD)



BEAUTIFUL MARBLED



Acrobasis tumidana



LANGMAID'S YELLOW UNDERWING

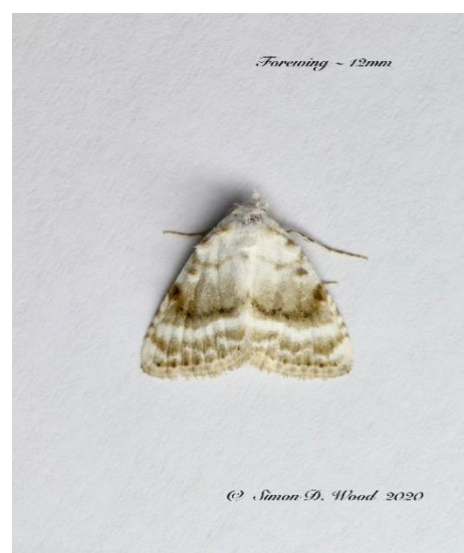
2020 was a generally good year for migrants with the stand-out records (all new for garden) being *Acrobasis tumidana* on 1st August, **Beautiful Marbled** on 9th August, **Delicate** on 6th September, the seven **Clancy's Rustics**. In addition, the specially planted Tobacco plants lured in six **Convolvulus Hawkmoths** during August and September. **Silver Y** had an exceptional year with the figures above including a count of 75 in the trap on 14th August, shattering the previous best for the garden (13 on 9th August 2013); 65% of the **Silver Y** in 2020 were trapped in August.



TWIN-SPOT WAINSCOT



LUNAR HORNET MOTH



KENT BLACK ARCHES



BLACKNECK



SALTEN EAR



ANTLER (S.W.)



Calybites phasianipennella



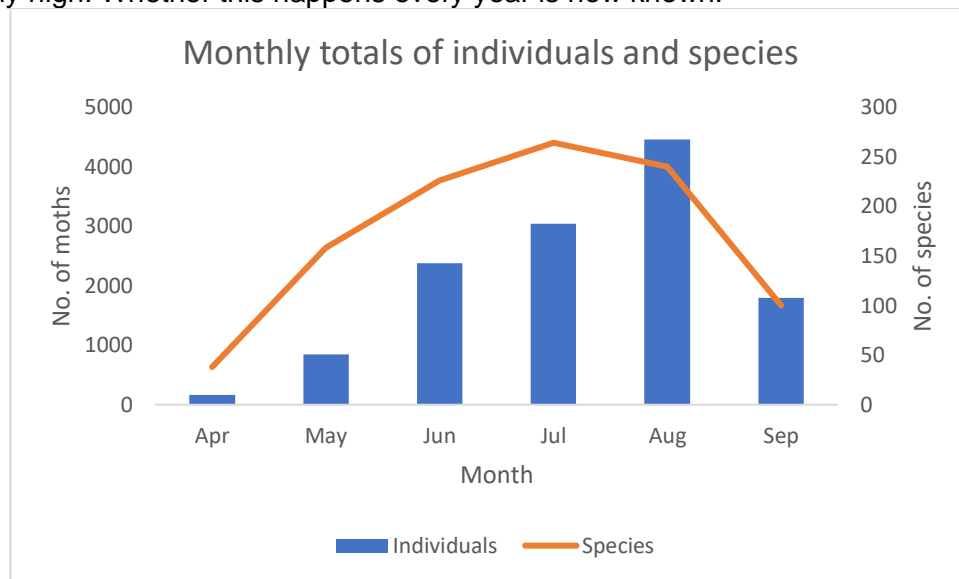
Stathmopoda pedella



Lyonetia prunifoliella

Conclusion

All in all, a remarkably successful year. I have traditionally found that the moth year is slow to start with, seemingly lagging behind many other Essex sites until summer gets here before really shifting into gear. Whilst light pollution is clearly an issue – not too far away industrial premises keep 500W sodium lights on all night – I think another factor causing the slow start may be the relatively exposed location. Whilst we are at sea level, and that helps maintain temperatures, the wind can continue to whistle through the garden into the summer! Effort was fairly constant from April to September; plotting the basic data on a graph confirms the slow start as far as numbers of individuals are concerned but species numbers are, somewhat surprisingly, fairly high. Whether this happens every year is now known.



2020 was an excellent opportunity to survey the lepidoptera of the garden and surrounds. It was particularly fascinating to be in touch with others around the County on a daily basis and be able to compare the catches we were getting as they happened.



BROAD-BORDERED YELLOW UNDERWING



SCALLOPED OAK

(S.W.)

Maureen Bissell took the reins recording in Hazeleigh Wood during 2020. I left her a variety of my traps and these she was able to run on a regular basis throughout the year. Maureen has become a very able mother but, so that she could record as much as possible, we also set up a Whatsapp group so that I could help with any tricky identifications and this worked very well.

In all, Maureen recorded a total of just shy of 400 species during the year, of which 25 were new for Hazeleigh, the site total for which is now just short of 700 species.

Notable additions were *Metalampra italica*, *Anerastia lotella*, *Agrotera nemoralis* (a RDB1 species restricted to Kent), **Convolvulus Hawk-moth**, **Bordered Beauty**, **Rest Harrow** and **Clancy's Rustic**. **Dark Crimson Underwings** were recorded twice, pretty much confirming these are now a Hazeleigh resident.

Agrotera nemoralis – pictured right
(S. Wood/M.Bissell)



Also of note was that **Marbled White** appears to have colonised the wood, which means that along with **White Admiral** and **Silver-washed Fritillary** and possibly **Purple Emperor** the butterfly list has increased by four over the last 15 years or which three were in the last three! Although **White-letter Hairstreak** was only found in 2018, it is assumed it had been overlooked and not a new arrival.

REPORT FROM CURRY FARM, BRADWELL

STEPHEN DEWICK

2020 was another very good year for immigrant lepidoptera and resident butterflies certainly benefitted from the prolonged dry spell in late summer.

However, our season was entirely overshadowed from early in March by the publication of plans by CGN (China General Nuclear) and EDF for a huge new nuclear power station at Bradwell. A proposed new road would carve straight through the Curry Farm Reserve destroying woodland, hedgerows and wild flower meadows alike.

January got off to an excellent start with **Mottled Umber**, **Early Moth** and **Satellite** in the trap on the 2nd. A **Peacock** butterfly was about on the 4th, a **Red Admiral** on the 9th and a female **Brimstone** on the 12th.

On the 18th a female **Brimstone** was observed as it flew into a bramble bush and chose a position under a leaf in full sunshine where it settled for the night.

The first day of February was particularly mild with a fair amount of sun. At 12.52pm, having shimmered its wings for several minutes, the **Brimstone** was observed as it emerged from its resting place and was active once again. Strangely, over the years the majority of **Brimstones** seen here in the winter have been of females and yet, as is generally noted, it is the males which are so dominant when the species first emerges from hibernation in the spring.



In stark contrast to 2019 our resident **Large Tortoiseshells** had a very disappointing season although at least two individuals were photographed in April. Once again the first **Orange-tips** were on the wing remarkably early and **Green Hairstreak** had another excellent year.

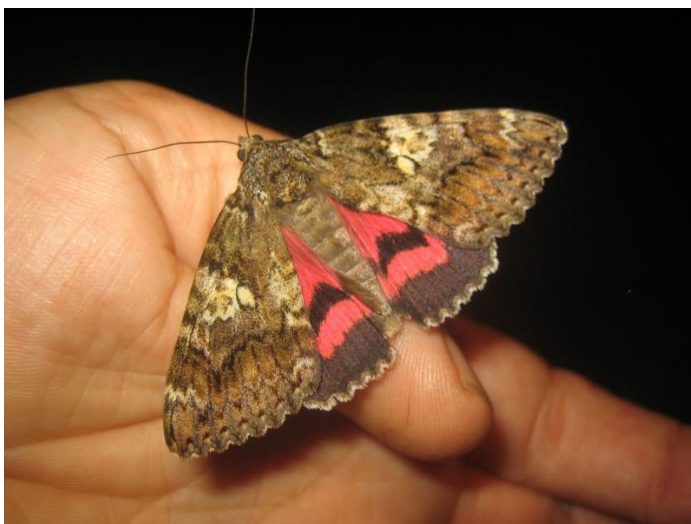
After a gap of no less than 30 years two female **Fox Moths** were captured at light during May and three single larvae were noted later in the season at widely separated locations around the reserve.

By June it was already apparent that, for immigrants at least, 2020 was going to be another interesting year. **Rusty-dot Pearl** and **Delicate** were appearing and for the first time since 2007 **Orache Moth** came to the trap on the 11th. *Catoptria verellus* is certainly now resident with a record breaking annual total of 98.

Immigrant activity increased still further in July with **Dewick's Plusia**, **Pigmy Footman** and the pyralid *Palpita vitrealis* seen. A total of 44 *Vitrealis* were eventually recorded making 2020 our best year ever. However, it was the superb **Dark Crimson Underwing** on the 25th which was without a doubt the highlight of the month.



ORACHE MOTH



DARK CRIMSON UNDERWING

(S.D.)

August did not disappoint either with **Bordered Straw** and **Golden Twin-spot** noted and on the 8th *Acrobasis tumidana* was added to the Bradwell list. It was good to see a **Beautiful Marbled** here for only the second time and the first of an unprecedented seven **Clifden Nonpareils** were also in the trap.

After an excellent September, October was something of an anti-climax but our second ever *Musotima nitidalis* came in on the very last night of the month.

Finally, the seasons' only example of **White-speck** was in the trap on the 22nd December with a **Pearly Underwing** the very next night.

Having just returned from my second fishing trip to Norway of 2020, our trip being cut short due to the rapidly worsening situation with Covid-19 and a fear of not being able to get home, I decided to voluntarily isolate for 2 weeks. Before the 2 weeks was up the government had put the country into lockdown and further more I had been advised to shield. Like many, I did not foresee this eventuality and had not made any preparation as to how I was going to fill the time that I now had due to the disruption of our normal routine.

I decided that I would tackle one long overdue task and clear out our garage. In so doing I came across a 6watt Actinic Heath trap that my wife, Tracy, had bought me 25 years ago when we lived in South Woodham Ferrers, as I had shown an interest in Graham Smith's moth trapping activities at Bradwell Bird Observatory during our bird ringing sessions. My first attempts at mothing, in our South Woodham garden, were to be short lived due to a lack of spare time, a lack of good reference books and help with identification as the technology to send photos was not available as it is today, or at least my ability to use it was sadly inadequate. Due to lockdown and retirement, time was no longer an issue. I also had a better moth identification guide and the ability to send photos for confirmation to Graham Ekins, a good friend of more than 40 years, who I knew was in to moth trapping.

Moth trap assembled and battery charged, we attempted our first catch on 11th April resulting in the capture of 2 **Marbled Browns**, photos sent to Graham for confirmation of identification. The next 2 attempts resulted in 2 more moths a **Hebrew Character** and a **Muslin Moth**. We were a little disappointed with only 4 moths from 3 sessions, although **Muslin moth** has remained one of Tracy's favourites. Graham to the rescue with the kind offer of the loan of 2 of his traps which we gladly accepted. The 125watt MV Robinson trap and 2x20watt Actinic Skinner trap that Graham had loaned us was to transform our mothing experience with 26 moths of 11 species on 24th April. We were now trapping regularly catching good numbers of moths and I am sure testing Graham's patience with a constant stream of photos with requests for help or confirmation of our, often tentative identifications. Tracy and I were firmly hooked. The second major impact on our mothing experience was the joining of the Essex Moth Group Facebook page, at Graham's suggestion. We first posted to the group on 28th April, but it was a while before I was brave enough to post without first seeking Graham's confirmation of our identifications. I was a little concerned that our lack of knowledge would be met with derision. I finally plucked up the courage to post, without pestering Graham first, on 19th May. I needn't have been concerned as the support and encouragement shown by other group members could not have been more friendly.

The trapping site, our garden, is in a very rural setting. The garden is approximately 1 acre in area and has many mature trees both in the garden and on the boundaries, mainly Oak and Sycamore with a few Bullaces, Hawthorn and Blackthorn. The gardens either side are similar in size and composition. Beyond the neighbouring garden to the north is arable farmland. There are 3 more lanes to the east of us with gardens of a similar size and beyond that arable farmland. To the south there are few more gardens, horse paddocks and farmland. Finally, to the west, approximately 3 – 4 acres of woodland comprised of mainly Oak and Ash. Sadly, over the last couple of years some of the Ash trees have succumbed to Ash Dieback. Geographically, the property lies between the towns of Burnham-on-Crouch and Southminster with the River Crouch 3.5 kilometres to the south, the River Blackwater just over 6.5 kilometres to the north and the coast and Dengie marshes 9 kilometres to the east.

Over the course of the year, since our first attempt in April, we have trapped on 110 nights, recording a total of 9630 moths. The species list stands at 316, not including moths that were not taken to species and recorded as agg. The species list and number of moths recorded could have been greater were it not for the fact that many micros were not retained due to the amount of time we were spending sorting and identifying the larger moths, sometimes spending 4 – 5 hours poring over reference books. I have to confess that on quite a few occasions during late June through to late August, with many catches in excess of 150 moths, we were somewhat overwhelmed, our busiest night was 15th/16th August with 254 moths recorded, a bit out of our depth. One of the benefits, perhaps of location but I suspect more to do with habitat, was that we continued to catch reasonable numbers of moths right through the year.

On a couple of occasions during November, topping 100 moths and still managing 40 moths on 21st December, although by then with only 4 – 5 species being represented. It wasn't until entering data on Peter Harvey's spreadsheet that I began to realise how uncommon many of the moths we had recorded were, although I gather that the status of some species is probably due for review. Even with this in mind, it was pleasing to find so many species warranting a mention of status. Following is list of species captured under the various categories highlighted.

Species listed as local, in order of capture throughout the year: **Maiden's Blush, Frosted Green, Least Black Arches, Yellow-barred Brindle, Scorched Carpet, Seraphim, Orange Footman, Chocolate-tip, Coronet, Scorched Wing, Clay Triple-lines, Cream-spot Tiger, Pine Hawkmoth, Light Brocade, Sharp-angled Peacock, Vine's Rustic, Large Nutmeg, Treble Brown Spot, *Anania crocealis*, Blotched Emerald, White Satin, Dwarf Cream Wave, Scarce Footman, Cypress Carpet, Lilac Beauty, Brown-tail, Orange Moth, Sycamore, Least Carpet, Scarce Silver-lines, Double Lobed, European Corn-borer, Small Elephant Hawkmoth, Rosy Footman, Lunar-spotted Pinion, *Synaphe punctalis*, Small Emerald, Maple Prominent, Buff Footman, Black Arches, August Thorn, Bird's Wing, Olive, Fen Wainscot, *Cochylis molliculana*, Cypress Pug, *Aproaerema anthyllidella*, Feathered Ranunculus and Oak Nycteoline.**



CREAM-SPOT TIGER



PINE HAWKMOTH



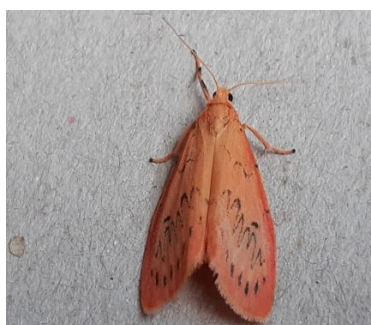
BLOTCHED EMERALD



ORANGE MOTH



SCARCE SILVER-LINES



ROSY FOOTMAN



BLACK ARCHES



FEATHERED RANUNCULUS
(Pics. C.H.)

Essex Red Data Species:

Beautiful Hook-tip: Trapped on 15 nights between 13th June and 9th October. Highest count, 5 on 26th June.

Festoon: Trapped on 18 nights with a highest count of 16 on 15th July.

Red-necked Footman: 1 encounter on 16th June.

Kent Black Arches: 1 trapped on 25th June.

Lappet: Singles on 12th July and 31st July.

Waved Black: 1 on 16th July.

Webb's wainscot: 3 on 1st August, 1 on 6th August and 1 on 16th August.

L-album Wainscot: trapped on 4 nights between 17th September and 16th October with 3 on 17th September.

Dusky-lemon Sallow: 1 on 8th October.

Dotted Chestnut: 1 on 15th October.

Catoptria verellus: 1 on 13th July and 2 on 15th July.

Pammene fasciana: 1 on 12th July.

Calamotropha paludella: 1 on 15th July.

Schoenobius gigantella: 1 on 23rd July.



BEAUTIFUL HOOK-TIP



RED-NECKED FOOTMAN



KENT BLACK ARCHES



LAPPET



L-ALBUM WAINSCOT



DUSKY-LEMON SALLOW



DOTTED CHESTNUT

Nationally Scarce B:

Evergestis limbata: 1 on 26th June and 1 on 21st August.



(Pics – C.H.)

Migrants:

Silver Y: Trapped regularly between 10th May and 21st November. Total 61 records, highest count of 6 on 28th August.

White Point: Trapped regularly between 21st May and 18th November. Total 121 records, highest count of 15 on 8th August.

Dark Sword-grass: singles on 4th May, 24th August and 7th September.

Four-spotted Footman: 1 on 26th June.

Clancy's Rustic: 1 on 14th September.

Rusty-dot Pearl: Trapped on 8 occasions between 17th October and 28th November. 6 trapped on 9th November.

Palpita vitrealis: Singles on 8th November and 13th November.

Diamond-back Moth: singles on 4 nights between 13th November and 22nd November.



DARK SWORD-GRASS



FOUR-SPOTTED FOOTMAN



CLANCY'S RUSTIC



Palpita Vitrealis

Rare Migrant:

Tree-lichen Beauty: trapped on 12 occasions between 18th July and 26th August with 5 on 1st August and 7 on 8th August. Due to the frequency of capture and numbers involved, I suspect that this is a species that may be due for a review of status.

Vagrant/Accidental: ,

Gypsy Moth: 2 on 8th August and 2 on 21st August.

Plumed Fan-foot: 1 on 8th August and 1 on 14th September.



GYPSY MOTH



PLUMED FAN-FOOT

(C.H.)

In conclusion, our experience of moth trapping through 2020 has been thoroughly enjoyable, if at times a little exhausting. We were of course aware that there would be moths visiting our garden but did not anticipate the numbers and variety of species that we would encounter. We are both looking forward to catching more species in 2021 and renewing our acquaintance with those species we trapped last year and furthermore hoping to get to grips with more of the micro moths. Finally, we sincerely hope that the situation with Covid-19 improves to a point where it is possible to meet with others and learn some of the simpler techniques involved in examining and separating some of the more difficult species.

2020 proved to be a very interesting year here in Boreham, partly due to the extended periods of Lockdown but also to the number of unexpected species identified. Our garden plot is 0.3 acre and is on the W edge of the village which is still surrounded by arable farmland (drone image) and to the S the Chelmer Valley. I suspect that having the village lights off from midnight until an hour before dawn has been a positive influence. I use several traps in both the front and back gardens, a mixture of MV, Actinics and LED. I also experimented with lures for the first time and was very surprised by the variety of species attracted. Tim Green has provided invaluable help with Lure types and trapping techniques. Overall I trapped for 140 nights and logged 18,875 moths of 625 species. I am grateful to Graeme Smith for confirming several of the 49 new species including the enigmatic **Langmaid's Yellow Underwing**. Overall at the end of 2020 I have recorded 884 species. It would be great to reach 900 by the end of the year.



Boreham village is still surrounded by arable farmland, to the north gravel pits and to the south the River Chelmer, my garden trapping site is arrowed. The image has been taken by drone from the Chelmer Valley, looking N.

The most surprising moth in 2020 was a fresh **Fisher's Estuarine Moth** trapped on the 16th September. This is the first inland Essex record of this normally quite sedentary and scarce species. On the continent (Fibiger et al 2005 Vol 8, *Noctuidae Europaeae*) indicates that in mainland Europe the species has been trapped some distance away from known populations. It could therefore be a continental vagrant but I suspect it was a wanderer from the Essex coast. Another interesting species was the micro ***Pammene suspectana*** and new for Essex. This came to a *G. molesta* lure on the 28th July and confirmed by Graeme Smith. This species is rare in the UK and the few records are East Anglian in origin, it was new to Norfolk in May 2017, currently there are no Suffolk records.



Fisher's Estuarine Moth



Pammene suspectana, New for Essex in 2020

Lures

I made an attempt at using lures during the summer and early autumn. I tried 27 different types and attracted 41 moth species between May and September including the new for Essex **Pammene suspectana**. The 8 species of Clearwing recorded in 2020 came to lures and were all NFS. I was surprised that some lures attracted more than one species. I will certainly be using some new types in 2021.

The clearwing species were:

Raspberry, Hornet, Lunar Hornet, Red-tipped, Orange-tailed, Red-belted, Yellow-legged and Currant Clearwing. Have added images of 3 of these species that are recorded less often in Essex.



LUNAR HORNET CLEARWING



RASPBERRY CLEARWING



ORANGE-TAILED CWING

Migrants

2020 was unusually good for migrant species with several having record counts. I am always surprised at the numbers and variety recorded at this inland location. This year I had very few migrants in the first part of the summer. This changed in August and was quite amazing for **Silver Y** with 236 recorded, I also had 99 **Tree-lichen Beauty** and 92 **White-point**. September with 13 species was the peak month while October and November had 11 and 7 species respectively. **Scarce Bordered Straw** had the best year since 2017 with 7, that year I logged 17. While 20 **Rusty Dot Pearl** in November was quite a surprise. 8 **Dark Sword-grass** was another record while one **Small Mottled Willow** was in fact the first since June 2018. I was delighted to record two **Acrobasis Tumidana** in July and August and 2 more of the delightful **Cydia amplana**.

Migrant summary

Species	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Diamond-back Moth	8	17	25	64	31	58	38	2	208
<i>Cydia amplana</i>				2					2
<i>Acrobasis tumidana</i>			1	1					2
European Corn Borer#		2	4	5	2				13*
Rusty Dot Pearl					4	2	20		26*
<i>Palpita vitrealis</i>					1		3		4*
Rush Veneer			1	4		2	1		8
H. Hawk-moth					1				1
Vestal				2		2			4
Dewick's Plusia#				1		1			2
Silver Y	6	2	43	236	49	29	45		410*
Scarce Bordered Straw				2	2	3			7
Delicate					1	1			2
Dark Sword-grass				3	1	2	2		8*
Convolvulus Hawk-moth					1				1
Small Mottled Willow					1				1
Tree-lichen Beauty#			59	99					158*
White-point#		2	29	92	18	14	7		162*
Clancy's Rustic#					9	1			10*
Langmaid's Y Underwing			1						1
Total	14	23	163	511	121	115	116	2	1065

* Refers to a record year total

May well include resident individuals

The 49 **new moth species in 2020** are listed below, 18 were Macros which is a much higher proportion than recent years. Unless otherwise stated all records below are singles:

04.030 BF99 *Stigmella hybnerella*: 31st July; GD. **Previous Essex record 2018.**

04.089 BF37 *Ectoedemia albifasciella*: 28th May. GD. **Previous Essex record 2018**

04.091 BF39 *Ectoedemia heringi*: 27th June GD

12.048 BF200 *Psychoidea filicivora* 9th, 10th & 12th August, also to TIP C. Clearwing lure GD 10/9, 12/9, 15/9

15.039 BF320 *Phyllonorycter quercifoliella*: 31st July

15.067 BF345 *Phyllonorycter rajella*: 21st August GD

15.085 BF363 *Phyllonorycter joannisi*: 21st May. **Previous Essex record 2018.**

16.007 BF430 *Yponomeuta plumbella*: 19th July

20.019 BF418 **Apple Fruit Moth** *Argyresthia conjugella*: 9th August. **5 other Essex sites**

21.002 BF262 *Lyonetia prunifoliella*: 23rd July, 6th & 8th August GD

35.071 BF736 *Monochroa lucidella*: 14th June. **Previous Essex record 2018.**

35.118 BF814 **Beet Moth: Scrobipalpa ocellatella** 2 on 17th September GD & 19th September

37.036 BF521 *Coleophora conyzae*: 26th June. GD. **Previous Essex record 2016.**

37.063 BF544 *Coleophora albicosta*: 27th June. GD

37.099 BF553 *Coleophora striatipennella* 21st May

37.102 BF563 *Coleophora argentula*: 30th July. GD

37.107 BF589 *Coleophora clypeiferella*: 7th August antennae & tergites examined; **Previous Essex record July 2011.**

43.007 BF918 *Scythris limbella*: 20th May ; **1 other Essex site; last record 2018**

45.008 BF1504 *Gillmeria pallidactyla*, Yarrow Plume : 26th June
 49.042 BF1027 *Neosphaleroptera nubilana*: 2nd & 12th June. GD.
 49.080 BF1053 *Acleris hastiana*: 2nd October
 49.086 BF1051 *Acleris logiana*: 8th November
 49.137 BF964 *Cochylis dubitana*: 8th August GD
 49.193 BF1104 *Endothenia quadrimaculana*: 12th August. GD. Previous Essex record 2010.
 49.229 BF1154 *Epinotia caprana*: 8th August. GD. Previous Essex record 1981.
 49.252 BF1142 *Epinotia tedella*: 28th May. GD. Previous Essex record 1996.
 49.275 BF1192 *Eucosma conterminana*: 14th July. GD
 49.305 BF1210 Pine Shoot Moth *Rhyacionia buoliana*: 27th June. GD
 49.335 BF1254 *Cydia strobilella*: 20th May. 4 other sites, last Essex record 2019.
49.364 BF1230 *Pammene suspectana*: 28th July, came to a G. molesta lure; New for Essex
 49.365 BF1229 *Pammene albuginana*: 18th, 19th & 21st May. All GD. 6 other Essex sites.
 52.001 BF369a Raspberry Clearwing *Pennisetia hylaeiformis*: 12th, 29th & 30th July. Attracted to lure
 52.002 BF370 Hornet Moth *Sesia apiformis*: 24th June: Attracted to lure
 52.003 BF371 Lunar Hornet Moth *Sesia bembeciformis*: 19th July. Attracted to lure
 52.008 BF380 Red-tipped Clearwing *Synanthedon formicaeformis*. 17th & 18th July. Attracted to lure
 52.010 BF378 Orange-tailed Clearwing *Synanthedon andrenaeformis*: 21st June. Attracted to lure
 52.011 BF379 Red-belted Clearwing *Synanthedon myopaeformis*: 25th, 26th, 27th May & 24th June. Att to lure
 52.012 BF374 Yellow-legged Clearwing *Synanthedon vespiformis*: 21st June. Attracted to lure
 52.013 BF373 Currant Clearwing *Synanthedon tipuliformis*: 22nd June. Attracted to lure
 62.033 BF1435 *Acrobasis tumidana*: 14th July & 10th August
 70.015 BF1712 Small Scallop *Idaea emarginata*: 3rd & 22nd July
 70.109 BF1797 Autumnal Moth *Epirrita autumnata*: 2nd November GD.
 70.119 BF1792 Dark Umber *Philereme transversata*: 19th July
 73.035 BF2290 Reed Dagger *Simyra albovenosa*: 20th May.
 73.058 BF2221 The Mullein *Cucullia verbasci*: 3rd May.
 73.122 BF2365 Fisher's Estuarine Moth *Gortyna borelii*: 15th September; 1st Essex inland record.
 73.197 BF2260 Dotted Chestnut *Conistra rubiginea*: 6th April.
 73.347 BF2110a Langmaid's Yellow Underwing *Noctua janthina*: 15th July. GD. 7th Essex site.
 74.001 BF2075 Small Black Arches *Meganola strigula*: 26th June. 2nd Essex site.

Thanks to Graeme J. Smith for GD.

Recent frequency and abundance changes to selected species

Several recent rapid changes to some species trapped here in Boreham for first time between 2015 and 2019. Hopefully Plumed Fan-foot, Black-spotted Chestnut and Clifden Nonpareil may be trapped here over the next few years as Essex / UK populations continue to increase.

Decimal Number	Species	1 st Recorded	Peak count	Total in 2020
28.008	<i>Metalampra italica</i>	02/07/2018	2 on 19/07/2020	6
63.054	Box Tree Moth	21/07/2017	102 17/9/2020	461
69.017	S. Elephant Hawk-moth	25/6/2015	7 on 14/6/2020	25
71.001	Oak Processionary Moth	25/07/2018	5 on 1/8/2020	16
72.011	Gypsy Moth	14/08/2015	5 on 7/8/2020	22
72.030	Jersey Tiger	24/7/2018	12 on 8/8/2020	45
73.047	Coronet	22/7/2018	5 on 3/7/2020	63
73.082	Tree-lichen Beauty	30/7/2014	22 on 10/8/2020	149
73.093	Clancy's Rustic	6/10/2019	3 on 16/8/2020	10

Other notable records in 2020

- 28.001 *Promalactis procerella*. 8th August 2020. 3rd site record.
- 35.096 *Chionodes fumatella*. 8th August, 3rd site record.
- 35.094 *Aroga velocella*. 3 records of this scarce Essex and nationally local species, 25th July and 10th and 12th August.
- 35.118 *Scrobipalpa ocellatella*, 1st recorded 2019, 2 records, 17th & 19th September of this once mainly coastal species. I have recorded this moth in all my inland Essex surveys in 2020. Several papers from Russia and the Middle East indicate that Sugar Beet *Beta vulgaris* is a widely exploited host plant species across its range. This may account for its recent inland occurrences in Essex.
- 37.108 *Coleophora salicorniae*, 1st recorded in 2019, 10 records between 5th and 25th August of this primarily coastal species. I have also found this species in some other inland sites suggesting they may well be exploiting another as yet unidentified food source.
- 49.185 *Lobesia littoralis*. 14th June & 12th August.
- 62.021 *Oncocera semirubella* 24th July, this is now an annual species.
- 70.023 *Scopula marginepunctata* **Mullein Wave**. 22nd May and 19th August.
- 70.069 *Pelurga comitata* **Dark Spinach**, 11th August; last site record 6th August 2016.
- 70.296 *Aplasta ononaria* **Rest Harrow**, 14th July and 20th August. 30th September
- 70.281 *Aleucis distinctata* **Sloe Carpet**. 12/04/2020.
- 72.066 *Parascotia fuliginaria* **Waved Black**, 17th June 2020, now annual.
- 73.002 *Abrostola triplasia* **Dark Spectacle**. Best ever year, 19th, 20th of August & 3rd & 22nd September.
- 73.052 *Cucullia umbratica* **Shark**. 26th and 31st May and 2nd July
- 73.105 *Dypterygia scabriuscula* **Bird's Wing** 24th June 20. Last record 15th July 2015.
- 73.119 *Helotropha leucostigma* **Crescent**. 17th August 20.
- 73.132 *Luperina nickerlii* **Sandhill Rustic**, 11th, 19th, 21st August and 2nd September. Trapped for 4 of the last 6 years of this primarily coastal species.
- 73.142 *Coenobia rufa* **Small Rufous**. 1st August.
- 73.159 *Apamea unanimitis* **Small Clouded Brindle**. 12th and 14th June.
- 73.231 *Panolis flammea* **Pine Beauty**, 13th & 23rd April.
- 30th September, 1st and 13th October.
- 73.253 *Tholera decimalis* **Feathered Gothic**. 3rd and 8th September.
- 73.279 *Hecatera bicolorata* **Broad-barred White**. 14th, 24th and 25th June.
- 73.294 *Mythimna straminea* **Southern Wainscot**. 3rd July.
- 73.344 *Noctua orbona* **Lunar Yellow Underwing**, 30th September, 1st and 13th October. My previous records were in 2011.



LANGMAID'S Y. UNDERWING



LUNAR YELLOW UNDERWING



DOTTED CHESTNUT (G.E.)



REST HARROW



DARK SPINACH



SCARCE BORDERED STRAW



SHARK



PINE BEAUTY



SANDHILL RUSTIC



SMALL SCALLOP



ONCOCERA SEMIRUBELLA



ACROBASIS TUMIDANA



LOBESIA LITORALIS



AUTUMNAL MOTH (G.E.)



AROGA VELOCELLA



SCROBIPALPA OCELLATELLA



CYDIA AMPLANA



RHYACIONIA BUOLINA



SCYTHRIS LIMBELLA



YARROW PLUME



COLEOPHORA CLYPEIFERELLA



STIGMELLA HYBNERELLA



PSYCHOIDES FILICIVORA (G.E.)

I was asked to carry out a moth survey as the owner, a wildlife enthusiast had no information on the estate moth population. The habitat was mainly old apple orchards and paddocks that are lightly grazed by horses and have not been sprayed. The Blackthorn and Hawthorn hedgerows are lightly trimmed on a less than annual basis. Along the southern boundary is Sandon Brook with many large *Salix*, *Populus* and Alder trees growing alongside. There are several fish ponds surrounded by a similar range of tree species as well as ditches with *Phragmites* and boggy areas with a variety of wetland plant species. I placed 2 MVs and an Actinic in an old orchard and an adjacent mature garden as well as 2 Actinics in separate paddocks. I was able to use mains electricity rather than a generator or batteries. I trapped 932 moths of 206 species, 109 were Macros and 97 Micros.

Woodland and Woodland edge species both deciduous and Coniferous included the scarce saproxylic micro ***Dasycera oliviella***, the fungal specialist **Waved Black**, the large and impressive Pyralid ***Dioryctria sylvestrella***, **Rosy Footman**, **Oak Eggar**, **Purple Thorn**, **Pale Oak Beauty**, **Pine Hawk-moth**, **Tree-lichen Beauty** and **Kent Black Arches**, ***Zeiraphera isertana*** as well as the recent colonist ***Vitula biviella***. Moths associated with Scrub and stream edge included **Dark Umber**, **White Satin Moth**, **Coronet** and **Maple Pug**, the delightful looking Alder specialist ***Stathmopoda pedella*** and ***Yponomeuta plumbella***. Grassland species were very well represented and included ***Pediasia contaminella***, ***Agriphila inquinatella***, ***Pempelia genistella*** (Gorse amongst the paddocks), ***Phycitodes binaevella***, ***Homeosoma sinuella*** and **L-album Wainscot**. Wetland and marshland species included ***Epiblema foenella***, **The Drinker**, ***Calamatropha paludella***, ***Donacaula forficella***, ***Chilo phragmitella***, ***Anania crocealis***, **Ringed** and **Small China-marks**, **Fen**, **Webb's**, **Bulrush** and **Obscure Wainscots**.

Although I only trapped on one occasion it is clear that the estate has species associated with a variety of habitats including those that are scarce or rare in Essex. It will be interesting to trap in the spring and autumn as there are no doubt important species that have yet to be recorded.



DASYCERA OLIVIELLA



DIORYCTRIA SYLVESTRELLA



KENT BLACK ARCHES



VITULA BIVIELLA



STATHMOPODA PEDELLA



PEDIASIA CONTAMINELLA



THE DRINKER



PEMPELIA GENISTELLA



OBSCURE WAINSCOT



FEN WAINSCOT



WEBB'S WAINSCOT

MOTH SURVEYS, SPAINS HALL ESTATE, FINCHINGFIELD, NORTH ESSEX

GRAHAM EKINS

This large north Essex estate comprises several arable farms owned and managed by Archie Ruggles-Brise. He is an ardent conservationist and runs the estate to maximise wild life diversity. A search of the EFC database and web failed to find any reference to previous insect surveys on the estate.

After preliminary visits with Jeff Delve who co-ordinated the bird surveys I managed to complete 3 visits on the 2nd June, 14th June with Glyn Evans and the 9th September with Dougal Urquhart. Earlier visits were cancelled due to Covid restrictions. It is hoped to carry out further surveys Covid restrictions allowing during 2021.

The sites chosen were Great and Little Howe Woods and the environment of the estate office at Dairyley Farm.

The woods are primarily different ages of Coppiced Ash, Hornbeam and Field Maple with many large Standard Oaks scattered across the woods and along the rides. There are several damp, grassy areas with a small pond in Great Howe Wood. The nearby hedgerows and drainage ditches are sensitively managed to maximise botanical diversity.



MAIN RIDE GREAT HOWE WOOD



(G.E.)
HORNBEAM COPPICE LITTLE HOWE WOOD

We used a variety of battery and generator powered MV, Actinic and LED traps. These were set at dusk and checked at dawn. For the first 3 hours of the evening moths attracted to the traps were checked and species logged. All suspected group 4 species were confirmed by GD.

On the 2nd June 111 moth species were recorded, 35 were Micros and 76 Macros. On the 14th June the total was 126 species, 11 of which were only found around the estate offices by Glyn Evans. On the 9th September Dougal Urquhart and myself logged 68 species. Overall we logged 2185 moths of 213 species on the estate in 2020.

An analysis of the Lepidoptera recorded indicates the importance of the damp woodland rides and the mature woodland, especially of oak. Of particular note for the woodland were ***Archips crataegana* Brown** **Oak Tortrix**, ***Nematopogon metaxealla***, ***Calybites phasianipennella***, ***Stenolechia gemmella***, ***Ptycholoma lecheana***, ***Cnephasia stephensiana* (Grey Tortrix)**, **Orange Sallow**, **Peach Blossom**, **Seraphim**, **Great Oak Beauty** is a Nationally Scarce B, **Pale Oak Beauty** and **Engrailed**. In sheltered woodland rides ***Pseudosciaphila branderiana*** (scarce, only 4 other Essex sites), ***Coleophora caespititiella***, **Clouded Bordered Brindle** and **Ingrailed Clay**. While in more open woodland ***Dichrorampha alpinana*** and **Beautiful Golden Y**.

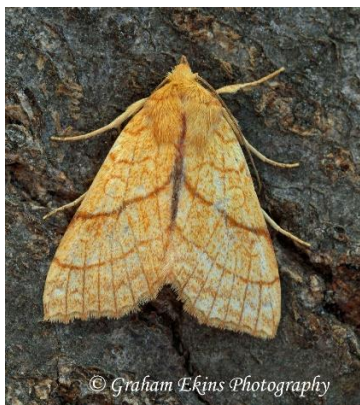
The most common species were **Common Swift 146**, **Large Nutmeg 50**, **Barred Sallow 46**, **Large Yellow Underwing 63**, **Square-spot Rustic 81**, **Blotched Emerald 77**, **Tortrix viridana (Green Oak Tortrix) 165**, **Agapeta hamana 180** and **Archips xylosteana (variegated Gold Tortrix) 62**.



INGRAILED CLAY



BEAUTIFUL GOLDEN Y



ORANGE SALLOW



GREAT OAK BEAUTY



PTYCHOLOMA LECHEANA



NEMATOPOGON METAXELLA



CLOUDED BORDERED BRINDLE



STENOLECHIA GEMMELLA



ARCHIPS CRATAEGANA –Brown Oak Tortrix



PSEUDOSCIAPHILA BRANDERIANA



DICHRORAMPHA ALPINANA

During 2020 traps were run in the garden on 60 nights. The house is in a rural location between Boreham and Great Leighs, north-east of Chelmsford. In addition lures were used during the spring and summer and some local walks produced a few records. In all 516 species (281 macros/235 micros) were recorded in 2020 with 514 from the garden. The garden traps caught 11,500 moths during 2020.

75 new species to the garden were recorded helped by 2 factors other than being at home all the time. Firstly the use of lures which resulted in 6 different Clearwings (**Raspberry, Hornet, Orange-tailed, Red-belted, Yellow-legged and Currant**) along with some by-catches including the tiny **Stenoptinea cyaneimarmorella** recorded only a handful of times in Essex. No Clearwings had previously been seen.



ORANGE-TAILED CLEARWING



RASPBERRY CLEARWING

(A.R.)

The other major contributor was sending moths for dissection (GD) from groups previously recorded as aggregates. This yielded 14 different *Coleophoras*, 5 *Cnephasias*, 3 *Dichroramphas* and 2 *Parornix*s. It also allowed definitive **Grey and Dark Dagger** (*Acronicta psi*/A. tridens), **Common and Lesser Common Rustic** (*Mesapamea secalis*/M. didyma), **Rustic and Uncertain** (*Hoplodrina blanda*/H. octogenarian) and **Marbled and Tawny Barred Minor** (*Oliga strigilis*/O. latruncula). In all 68 species were confirmed by GD.

Three of the micro species determined by GD had not been recorded in Essex for 5-10 years, probably not due to rarity, but because they are category 4 and need dissection to identify them. Graeme Smith did a great job dissecting and identifying for me this year.

Records of note where there have been few Essex records previously were:-

Coleophora frischella	17/07/2020	1 Dissected	1 previous Essex record
Dichrorampha aeratana	April-May	5 dissected	7 previous Essex records
Epinotia tedella	21/05/2020	1 trapped	5 previous Essex records
Beautiful Marbled (Eublemma purpurina)	07/08/2020	2 individuals	3 previous Essex records
Gelechia scotinella	12/07/2020	Dissected	5 previous Essex records
Lyonetia prunifoliella	31/07/2020	1 trapped	10 previous Essex records
Nemapogon ruricolella	25/06/2020	1 dissected	9 previous Essex records
Pammene albuginana	25/05/2020	1 dissected	5 previous Essex records
Prays ruficeps	03/05/2020 17/08/2020	1 on 2 occasions	10 previous Essex records
Stenoptinea cyaneimarmorella	14/07/2020 17/07/2020	1 dissected 1 released	4 previous Essex records



BEAUTIFUL MARBLED



Epinotia tedellae



Gelechia scotinella (A.R.)

Two **Beautiful Marbleds** (*Eublemma purpurina*) at the same trap along with 5 hitherto unrecorded **Hornet moths** (*Sesia apiformis*) to a lure trap provided the noisy moments of the year. The amusing moment would have been the sight of me crashing about in an overgrown field, wildly swishing, chasing after my first ever **Emperor Moth** (*Saturnia pavonia*) which I had not realised were such fast fliers until then. The low moment, other than the ones that got away, was getting a hornet inside my shirt and being stung. I now have a more rigorous strategy with hornets and wasps which were in good numbers again this year.

SHENFIELD TRAPPINGS 2020

ROBBIE LEGG

I am a relative newcomer having joined the Essex Moth Group Face book page in January 2019 after Peter Harvey advised me to go there to help with my identifications. I have found the help, knowledge and support invaluable and my occasional records of moths I came across has blossomed. I live on an organic farm and in 2020 trapped within extension lead distance of the farmhouse using a Skinner 125W MV trap on 30 occasions recording 5647 moths of 381 species including 60 defined nationally as local and 19 Essex RDB species. Many of the recorded moths were not trapped but found around the farm during the day or on my windows at night.

I have found the different habits and requirements of the moths fascinating and been surprised how often an interesting moth turns up unexpectedly. One such was my first **Dewick's Plusia** spotted at 7pm 20th May flying round the poly tunnel. Whilst in the pot it laid some white eggs which I reared. The books say it is found May and July-October but mainly August to October. I can see why. The eggs hatched on the 27th May at around 11pm and after growing quickly on a diet of nettles the first ones pupated on the 18th June and emerged on the 30th June. In all 33 adults were raised. With this rapid growth and common food plants the first immigrants in May could easily raise 2 generations by September and be much more abundant here August to October.



DEWICK'S PLUSIA LARVAE - 5TH & 20TH JUNE



DEWICK'S PLUSIA

(R.L.)

The year started well with a chance find of a *Mompha jurassicella* on the 17th January indoors. I thought it was a *Mompha* of some sort and after posting on the Essex Moth Group Facebook site Ben Sale and Graeme J. Smith kindly identified it as a probable *jurassicella* later confirmed by Graeme with a gen det. Other chance findings during the day indoors were **Cacao Moth** *Ephestia elutella* 22nd July and *Ochsenheimeria urella* 20th August both Nationally scarce B and both confirmed by gen det. The poly tunnel yielded an interesting *Acompsia schmidtellus* 28th June in the marjoram again during the day and Nationally scarce B.



Acompsia schmidtellus



WAVED BLACK

But probably the most interesting day time find was *Nemapogon variatella* which is pRDB3. Two females were confirmed by gen det from the 28th and 29th May but there appeared to be large numbers over a couple of weeks flying around the farmyard between 6pm and 9pm each night and coming in the house. They all had the distinctive white heads and colouring but could not be recorded as they were not verified by gen det.

I did get some Nationally scarce B micro moths in the traps too. *Monochroa palustrellus* on the 24th June, *Recurvaria nanella* 30th July confirmed by gen det and *Pediasia contaminella* 7th August. Also macros **Kent Black Arches**, **Dotted Chestnut**, **Toadflax Brocade**, **L-album Wainscot** and **Waved Black** all of which appear to be getting more numerous in the county in recent years.



Nemapogon variatella



Elachista bisulcella

(R.L.)

I had wondered if the scarcity of some of the day flying micros is due to them not being looked for rather than the moths not being there. As with a night flier which I found my most interesting trapped micro *Elachista bisulcella* on the 7th August confirmed by gen det. Listed nationally as local it had not been recorded in Essex since the 1980s but has a common food plant and no apparent reason why it is not found. It's not just Essex, as Norfolk and Suffolk also have a dearth of recordings.

Most of my recordings are of whatever is common at the time eg 138 **Common Wainscots** on the 7th August. All moths are interesting.

Many thanks to all on the Essex Moth Group Facebook page for their patience and help and sharing so many of their finds and experience. Also thanks to Peter Harvey and to Graeme J Smith without whose work I would not be able to record as many moths. Good mothing to everyone for 2021.

Preliminary report part 2 (2020)

In 2020 I did 14 nights of trapping, mostly in the tracks under the power lines, which provided a more open area for trapping, with a more varied understory than the more traditionally woodland-type habitat surveyed in 2019. On each occasion to set 2 135W mercury vapour Robinson traps, 2 15W actinic Heath traps and usually a funnel trap with a circular 22W synergetic bulb (which is now retaining moths, since my son made vanes for it). On some occasions I did some 'dusking' with a torch and net and I also made several daytime visits to look for leaf-mines and day-flyers.

Trapping dates, moth counts and species counts were as follows:

Date	04/02	14/03	20/05	01/06	15/06	26/06	13/07
Moths	88	79	257	277	476	380	618
Species	8	14	103	69	101	110	160

Date	22/07	05/08	13/08	23/08	15/09	21/10	09/11
Moths	537	435	539	263	98	34	129
Species	130	137	132	77	45	16	22

4210 moths of 459 species were obtained, 11 of which were new for me.

Combining 2019 and 2020 the total number species found is now **557**

102 species seen in 2019 were not seen in 2020

166 species seen in 2020 were not seen in 2019

Scarcer species recorded so far are as follows (2020 records in bold):

National RDB: 3; National Scarce A: 4; Nationally Scarce B: 27; Essex RDB only: 18

04.062 *Stigmella samiatella* (Essex RDB) 2 on 20/05/2020, 1 on 22/07/2020, 1 on 13/08/2020 (gen.det.)



Figure 1: *Stigmella samiatella*

10.006 *Coptotriche angusticolella* (NS-B) 1 on 11/07/2019; 1 on 20/05/2020

12.008 *Stenoptinea cyneimarmorella* (RDB) 1 on 11/07/2019, 2nd Essex record

12.017 *Nemapogon koenigi* (NS-B) 1 on 01/06/2020 (gen.det.)

12.021 *Nemapogon clematella* (Essex RDB) 1 on 05/08/2020



Figure 2: *Nemapogon clematella*

15.001 *Parectopa ononidis* (NS-B) 2 on 20/05/2020, 1 on 05/08/2020

15.002 *Caloptilia cuculipennella* (NS-A) 1 on 23/07/2019, ?4th Essex record

15.027 *Parornix carpinella* (NS-A) 1 on 01/05, 1 on 23/07, 2 on 17/08/2019; 1 on 22/07/2020 (all gen.det.)

15.045 *Phyllonorycter mespilella* (NS-B) 1 on 27/08/2019; 1 on 05/08/2020 ?4th + Essex records (gen.det.)

17.006 *Ypsolopha horridella* (NS-B) 1 on 13/08/2020



Figure 3: *Ypsolopha horridella*

17.008 *Ypsolopha alpella* (Essex RDB) 1 on 27/08/2019; (gen.det.)

20.005 *Argyresthia trifasciata* (Essex RDB) 1 on 20/05/2020

21.002 *Lyonetia prunifoliella* (making a comeback from presumed extinction) 1 on 27/08/2019, ?1st Essex record

28.001 *Bisigna procerella* (RDB) 1 on 30/06, 4 on 11/07, 3 on 23/07/2019; 1 on 13/07/2020, 1 on 05/08/2020 ?3rd+ Essex records

28.020 *Dasycera oliviella* (NS-A) 1 on 30/06, 2 on 11/07, 4 on 23/07/2019; 1 on 26/06/2020, 1 on 05/08/2020

30.002 *Agnoea subochreella* (NS-B) 1 on 17/05/2020 (netted by day), 2 on 20/05/2020, 3 on 01/06/2020

34.014 *Sorhagenia janiszewskae* (NS-A) 1 on 05/08/2020 (gen.det.) 2nd Essex record (last pre-1990)



Figure 4: *Sorhagenia janiszewskae*

35.003 *Syncopacma larseniella* (Essex RDB) 1 on 11/07/2019, 1 on 23/07/2019; 10 on 13/07/2020, 2 on 22/07/2020 (gen.det.)

35.0191 *Anarsia innoxella* (status uncertain) 1 on 23/07/2019

35.073 *Monochroa palustrellus* (NS-B) 1 on 30/06/2019

35.081 *Oxypteryx atrella* (Essex RDB) 1 on 13/07/2020, 4 on 22/07/2020, 1 on 05/08/2020, 2 on 13/08/2020 (gen.det.)

35.099 *Gelechia senticetella* (NS-B) 3 on 05/08/2020

35.107 *Psoricoptera gibbosella* (Essex RDB) 1 on 23/07, 1 on 17/08/2019; 1 on 22/07/2020, 3 on 05/08/2020, 1 on 13/08/2020

35.133 *Caryocolum blandella* (NS-B) 1 on 22/07/2020 (7th Essex record)



Figure 5: Caryocolum blandella

35.152 *Pseudotelphusa scalella* (NS-B) 1 on 20/05/2020



Figure 6: Pseudotelphusa scalella

- 35.152 *Pseudotelphusa scalella* (NS-B) 1 on 20/05/2020
 37.017 *Coleophora prunifoliae* (NS-B) 1 on 13/07/2020 (gen.det.)
 37.039 *Coleophora hemerobiella* (Essex RDB) 1 on 05/08/2020
 37.058 *Coleophora conspicuella* (RDB) 2 on 13/07/2020 (gen.det.)



Figure 7: *Coleophora conspicuella*

- 37.077 *Coleophora lasella* (NS-B) 1 on 23/05/2019 (gen.det.)
 37.108 *Coleophora salicorniae* (NS-B) 3 on 05/08/2020 (gen.det.)
 38.017 *Elachista adscitella* (NS-B) 1 on 13/08/2020 (gen.det.)
 38.022 *Elachista gleichenella* (Essex RDB) 1 on 30/06/2019 (gen.det.)
 42.002 *Stathmopoda pedella* (NS-B) 1 on 23/07/2019
 49.014 *Archips crataegana* (Essex RDB) 1 on 30/06/2019
 49.122 *Aethes dilucidana* (NS-B) 1 on 05/08/2020
 49.087 *Acleris literana* (Essex RDB) 2 on 23/05, 1 on 23/07/2019
 49.256 *Epinotia cinereana* (status uncertain due to relatively recent split from *E.nisella*, not yet recorded on Essex Field Club site) 1 on 27/08/2019
 49.363 *Pammene argyrana* (Essex RDB) 4 on 01/05/2019
 49.382 *Strophedra nitidana* (Essex RDB) 1 on 13/07/2020
 53.001 *Apoda limacodes* (Festoon) (NS-B) 10 on 30/06, 20 on 11/07, 10 on 23/07/2019; 2 on 26/06/2020, 10 on 13/07/2020
 62.010 *Elegia similella* (NS-B) 1 on 11/07/2019; 2 on 15/06/2020, 1 on 26/06/2020
 62.021 *Oncocera semirubella* (NS-B) 1 on 23/07, 1 on 27/08/2019; 1 on 22/07/2020
 62.022 *Pempelia genistella* (NS-B) 1 on 23/07/2019; 1 on 22/07/2020, 1 on 05/08/2020
 63.075 *Eudonia pallida* (Essex RDB) 1 on 13/07/2020
 63.102 *Catoptria falsella* (Essex RDB) 1 on 05/08/2020, 1 on 13/08/2020
 63.103 *Catoptria verellus* (formerly rare migrant, probably now resident, Essex RDB) 2 on 11/07, 1 on 23/07/2019
 63.112 *Platytes alpinella* (NS-B) 1 on 23/07/2019
 63.120 *Schoenobius gigantella* (Essex RDB) 1 on 26/06/2020
 70.031 *Cyclophora annularia* (Mocha) (NS-B) 1 on 20/05/2020



Figure 8: Mocha

70.153 *Eupithecia plumbeolata* (Lead-coloured Pug) (NS-B) 1 on 23/05, 2 on 11/07/2019; 1 on 20/05/2020, 1 on 15/06/2020, 3 on 26/06/2020, 4 on 13/07/2020 (most gen.det.)
 72.011 *Lymantria dispar* (Gypsy Moth) (Vagrant) 3 on 05/08/2020, 1 on 13/08/2020



Figure 9: Gypsy Moth

72.030 *Euplagia quadripunctaria* (Jersey Tiger) (NS-B) 1 on 13/08/2020
 72.042 *Atolmis rubricollis* (Red-necked Footman) (Essex RDB) 1 on 26/06/2020
 72.069 *Laspeyria flexula* (Beautiful Hook-tip) (Essex RDB) 1 on 01/06/2020, 2 on 15/06/2020, 2 on 13/07/2020, 4 on 22/07/2020
 73.197 *Conistra rubiginea* (Dotted Chestnut) (NS-B) 2 on 14/03/2020



Figure 10: Dotted Chestnut

73.300 *Mythimna l-album* (L-album Wainscot) (NS-B) 2 on 30/06/2019; 2 on 26/06/2020, 1 on 13/07/2020, 1 on 23/08/2020, 1 on 15/09/2020
 74.002 *Meganola albula* (Kent Black Arches) (NS-B) 1 on 23/07/2019, 1 on 13/07/2020

On 28/03/2020 I noted the presence of mines in broom for 04.068 *Trifurcula immundella* and 21.005 *Leucoptera spartifoliella*. Despite much searching I was unable to find any larvae or adults to confirm these species.

In 2020 moth-trapping occurred on 12 nights:

3430 moths of 331 species were obtained.

These included 10 Red Data Book species (more than in any previous year)

Date	Site	Grid ref	No. of moths	No. of species
9 th May	Sharpsness Head	TQ989887	71	23
16 th May	Bennetts Butt	TR042943	182	52
30 th May	Bennetts Butt	TR042943	317	73
13 th June	Sharpsness Head	TQ989887	406	109
20 th June	Bennetts Butt	TR042943	411	101
4 th July	Bennetts Butt	TR042943	255	60
31 st July	Sharpsness Head	TQ989887	575	128
8 th August	Bennetts Butt	TR042943	392	98
15 th August	Sharpsness Head	TQ989887	502	85
12 th September	Bennetts Butt	TR042943	190	51
19 th September	Bennetts Butt	TR042943	123	24
14 th November	Bennetts Butt	TR042943	6	4

An impressive 34 species were new for Foulness, including 6 scarce migrants (and 6 new for me). This brings the total number of species of Lepidoptera for which I have a record of occurrence on Foulness to **679**.

I have a photographic voucher for nearly all of these species. These and others are presented on my moth website britishlepidoptera.weebly.com.



Figure 11: *Sciota adelphella*

Scarce species recorded in 2020 are shown in bold in the cumulative list presented below:

Scarce Migrants

49.343 *Cydia amplana* (Vagrant Piercer) – 1 on 03/08/2018 – first recorded in Britain in 1990, 5 previous Essex records according to Essex Field Club website

62.017 *Sciota adelphella* – 1 on 08/08/2020 - 7 previous Essex records according to Essex Field Club website

62.033 *Acrobasis tumidana* – 2 on 08/08/2020 - 3 previous Essex records according to Essex Field Club website

63.048 *Palpita vitrealis* – 2 on 19/09/2020

72.011 *Lymantria dispar* (Gypsy Moth) – 1 on 31/07/2020

72.030 *Euplagia quadripunctaria* (Jersey Tiger) – 1 on 11/08/2018; 3 on 31/07/2020

72.032 *Coscinia cribraria* (Speckled Footman) – 1 on 31/07/2020 – 3rd Essex record and 24th British record of the migrant race *bivittata*

73.076 *Helicoverpa armigera* (Scarce Bordered Straw) – 4 on 26/08/2017; 1 on 12/09/2020



Figure 12: *Palpita vitrealis*



Figure 13: *Oxypteryx immaculatella*

Red Data Book species (Nationally Endangered, Vulnerable or Rare)

35.082 *Oxypteryx immaculatella* – 1 on 05/08/2012 – S England & N Scotland – FIRST FOR ESSEX. **1 on 09/05/2020, 1 on 31/07/2020 (3rd and 4th Essex records)**

37.047 *Coleophora amethystinella* – 1 on 08/05/11 – previously only known to occur in North Essex (and 1 record from Hampshire), this was the first Essex record South of the Blackwater. Has now spread into much of Essex and South Suffolk. At least 10 netted by day from grasses in the Bennets Butt rides on 22/05/2016 and at least 20 on 04/06/2016; 6 on 27/05/2017; 1 to light on 20/05/2018, 1 netted at dusk and 1 to light on 02/06/2018; 70 netted in the Bennets Butt rides on 25/05 and 40 on 01/06/2019. **20 on 16/05/2020, 3 on 30/05/2020.**

37.079 *Coleophora aestuariella* – 1 on 01/08/2015 (3rd record for Essex). **1 on 08/08/2020 (4th record for Essex)** – saltmarsh in SE.England

49.271 *Eucosma rubescana* – 1 on 08/06/2008. **1 on 30/05/2020** – saltmarsh in Kent, Essex & Suffolk

49.274 *Eucosma metzneriana* – 1 on 27/06/2015 (possibly 7th record for Essex); 1 on 11/06/2016; 1 on 24/06/2017. **1 on 13/06/2020, 1 on 20/06/2020** – recent colonist, possibly breeding in Kent

49.369 *Pammene agnotana* - 1 on 12/05/2012 – recent colonist with few British records – First for Essex

70.003 *Idaea ochrata* (Bright Wave) – **1 on 20/06/2020 – first Essex record this century**; breeds very locally in Kent



Figure 14: Bright Wave

70.296 *Aplasta ononaria* (Rest Harrow) – 1 on 09/08/2015 (possibly 5th record for Essex); 9 on 03/08/2018, 1 on 11/08/2018, 1 on 18/08/2018; 7 on 24/08/2019; **2 on 15/08/2020** - breeds very locally in Kent, occasional migrant

73.027 *Deltote bankiana* (Silver Barred) – 1 on 13/06/2009; 1 on 10/07/2010; 2 on 30/06/2013; 1 on 07/06/2014; 1 on 04/07/2015; **3 on 20/07/2020, 2 on 04/07/2020**

73.059 *Calophasia lunula* (Toadflax Brocade) – **1 on 31/07/2020**

73.132 *Luperina nickerlii* (Sandhill Rustic) – 2 on 15/08/2015; 2 on 13/08/2016; 1 on 26/08/2017; 6 on 03/08/2018, 4 on 11/08/2018, 5 on 18/08/2018; 6 on 08/09/2018; 4 on 24/08/2019; **1 on 15/08/2020**

Nationally Scarce A (found in 30 or fewer 10km squares of the National Grid)

07.004 *Nemophora fasciella* – 1 on 11/06/2016 (potted by day on New England Island at ~TQ973906) – S&E.England

35.029 *Brachmia inornatella* – 1 on 13/06/2015 – fens & marshes in SE.England

38.043 *Elachista scirpi* 1 on 14/07/2013 – saltmarsh in England and Wales

45.022 *Cnaemidophorus rhododactyla* 1 on 21/07/2018 – hedgerows with rose in SE England

66.004 *Malacosoma castrensis* (Ground Lackey) – 1 on 10/07 and 31/07/2010; 1 on 19/08/2012 - Saltmarsh in SE England

70.201 *Trichopteryx polycommata* (Barred Tooth-striped) – 1 on 03/04/10; 5 on 07/04/2018, 1 on 14/04/2018 - prefers areas with chalky soils.

Nationally Scarce B (31-100 10km squares of the National Grid) or Uncommon in Essex (UE):

04.012 *Stigmella aceris* 1 on 22/09/2013. UE and probably NS-B but status uncertain. This tiny moth with forewing length 2.2mm was first recorded in Britain in 1949, second record 1971, several subsequent records and now seems to be spreading but still scarce. It is on the Essex Field Club's Red Data List, which shows 14 previous Essex records.

12.040 *Monopis imella* (NS-B) 1 on 01/06/2019

27.002 *Oegoconia caradjai* (NS-B) 1 on 28/07/2018; **1 on 04/07/2020, 1 on 31/07/2020**

32.003 *Luquetia lobella* (UE) – **2 on 13/06/2020**



Figure 15: *Luquetia lobella*

32.044 *Depressaria douglassella* (NS-B) 2 on 26/08/2017

35.073 *Monochroa palustrellus* (NS-B) 3 on 14/07/2013, 1 on 21/07/2013; 2 on 12/07, 1 on 19/07/2014, 2 on 27/06/2015, 2 on 04/07/2015, 2 on 15/08/2015, 1 on 16/07/2016

35.081 *Oxypteryx atrella* (UE) **1 on 31/07/2020**

37.003 *Coleophora limoniella* (NS-B) 1 on 14/07/2013 – saltmarsh in SE England

37.091 *Coleophora deviella* (NS-B) 1 on 23/07/11; 1 on 19/07, 1 on 26/07/2014 – saltmarsh in SE England

37.104 *Coleophora adpersella* (NS-B) 1 on 05/08/2012 – S.England; 1 on 03/08/2018

49.116 *Aethes williana* (NS-B) 1 on 25/05/2019

49.122 *Aethes dilucidana* (NS-B) 2 on 03/08/2018, 1 on 11/08/2018; 1 on 25/05/2019; **8 on 31/07/2020**

49.219 *Thiodia citrana* (NS-B) 2 on 28/06/2008, 1 on 01/07/2008, 2 on 04/07/2009, 4 on 14/07/2013, 2 on 21/07/2013, 2 on 27/06/2015; **1 on 13/06/2020, 15 on 20/06/2020, 2 on 04/07/2020**



Figure 16: *Thiodia citrana*

49.278 *Gypsonoma minutana* (NS-B) 1 on 21/07/2018

49.327 *Cydia microgrammana* (NS-B) 2 on 13/06/2020

49.380 *Pammene gallicana* (NS-B) 1 on 19/07/2014

52.002 *Sesia apiformis* (Hornet Moth) (NS-B) 1 on 25/07/09 to HOR lure; 1 on 11/06/2011 on poplar trunk; 1 on 06/07/2019 to HOR lure – SE England

52.014 *Bembecia ichneumoniformis* (Six-belted Clearwing) (NS-B, Essex RDB) 2 on 06/07/2019 to API lure

62.010 *Elegia similella* (NS-B) 1 on 13/06/2020

62.021 *Oncocera semirubella* (NS-B) 1 on 04/07/2009; 1 on 10/07, 1 on 17/07, 1 on 31/07, 3 on 07/08/2010; 1 on 06/08/2011; 1 on 20/07/2013; 4 on 12/07, 2 on 19/07, 4 on 26/07/2014; 1 on 27/06, 1 on 14/07, 1 on 01/08, 1 on 15/08/2015; 2 on 13/08/2016; 6 on 24/06, 2 on 29/07, 10 on 26/08/2017; 4 on 21/07, 10 on 03/08, 10 on 18/08, 20 on 08/09/2018; 2 on 24/08/2019; **2 on 13/06/2020, 20 on 20/06/2020, 6 on 04/07/2020, 12 on 31/07/2020, 10 on 08/08/2020, 2 on 15/08/2020, 1 on 12/09/2020**

62.053 *Ancylosis oblitella* (NS-B), 1 on 31/07 and 07/08/10; 1 on 06/08/2011; 1 on 26/08/2017; 20 on 03/08/2018, 2 on 11/08/2018; 3 on 18/08/2018; 3 on 08/09/2018; 4 on 24/08/2019 - Saltmarsh

63.014 *Sitochroa palealis* (NS-B) 1 on 23/07/06, 1 on 05/08/07, 1 on 12/08/07, 1 on 20/07/08, 2 on 19/08/2012; 3 on 19/07, 3 on 26/07/2014; **2 on 08/08/2020, 1 on 15/08/2020** – S England and East Anglia



Figure 17: *Sitochroa palealis*

63.109 *Pediasia contaminella* (NS-B) 1 on 30/07/11, 1 on 01/08/2015; 1 on 28/07/2018; **2 on 31/07/2020, 1 on 08/08/2020** – S England

63.110 *Pediasia aridella* (NS-B) 1 on 27/06/2015; **1 on 13/06/2020** – saltings S&E England

63.112 *Platytes alpinella* (NS-B) 2 on 19/07/2014 – coastal dunes and shingle beaches S&E England

66.012 *Gastropacha quercifolia* (Lappet) (UE) 1 on 5, 19/07/08; 4 on 03/07/10, 6 on 10/07/10, 1 on 17/07/10, 2 on 31/07/10, 2 on 21/07/2013; 10 on 12/07, 10 on 19/07/2014, 8 on 04/07/2015, 8 on 16/07/2016; 12 on 24/06/2017; 1 on 21/07/2018; **1 on 20/06/2020, 4 on 04/07/2020**

70.028 *Scopula emutaria* (Rosy Wave) (NS-B) – 1 on 13/06/09; 2 on 03/07/10; 2 on 03/09/2011; 2 on 30/06/2013, 1 on 14/07/2013; 1 on 30/08/2014; 1 on 13/06/2015, 2 on 27/06/2015, 1 on 04/07/2015; 1 on 29/07/2017, 2 on 26/08/2017; 3 on 03/08/2018, 3 on 18/08/2018; 1 on 25/05, 6 on 24/08/2019; **2 on 30/05/2020, 4 on 13/06/2020, 1 on 20/06/2020, 1 on 08/08/2020, 3 on 15/08/2020**

70.057 *Catarhoe rubidata* (Ruddy Carpet) (NS-B); 1 on 27/06/2015

70.161 *Eupithecia virgaureata* (Golden-rod Pug) (UE); 1 on 18/08/2018

70.186 *Eupithecia millefoliata* (Yarrow Pug) (NS-B) 1 on 26/07/2014; 1 on 16/07/2016; 1 on 03/08/2018; **3 on 31/07/2020**– coastal from Dorset to Essex

70.232 *Ennomos autumnaria* (Large Thorn) (NS-B) 2 on 01/09/08, 1 on 13/09/2008, 1 on 02/09/2012 – SE England

72.021 *Spilosoma urticae* (Water Ermine) (NS-B) 1 on 21/06/08; **1 on 30/05/2020** - coastal areas in SE England

73.035 *Simyra albovenosa* (Reed Dagger) (NS-B) 2 on 26/07/08; 1 on 31/07 & 07/08/10; 2 on 21/07/2018 - reeds

73.055 *Cucullia asteris* (Star-wort) (NS-B) 1 on 30/06/07, 1 on 05/07/08, 2 on 26/07/08, 1 on 04/07/09; 1 on 22/05, 10/07 & 17/07/10; 1 on 30/07/2011, 2 on 05/08/2012; 10 on 14/07/2013, 6 on 21/07/2013; 1 on 12/07, 8 on 19/07, 4 on 26/07, 2 on 16/08/2014; 2 on 27/06/2015; 1 on 16/07/2016; 3 on 24/06/2017, 2 on 29/07/2017; 6 on 21/07/2018; 1 on 10/08/2019; **1 on 16/05/2020, 1 on 20/06/2020, 3 on 31/07/2020** – saltmarsh

73.082 *Cryphia algae* (Tree-lichen Beauty) (Formerly a rare migrant, currently breeding in SE.England) 1 on 13/08/2011, 2 on 18/08/2012, 3 on 26/07/2014; 10 on 21/07/2018, 10 on 28/07/2018, 2 on 03/08/2018; 4 on 10/08/2019; **3 on 31/07/2020, 4 on 08/08/2020**

73.087 *Spodoptera exigua* (Small Mottled Willow) – 2 on 04/07/2015, 1 on 01/08/2015, 2 on 15/08/2015 – an uncommon migrant that had a bumper year in 2105

73.151 *Globia sparganii* (Webb's Wainscot) (NS-B) 1 on 07/09/2008; 1 on 21/07/2018, 1 on 03/08/2018 – S&E coasts

73.161 *Apamea oblonga* (Crescent Striped) (NS-B) 1 on 05/07/08, 1 on 04/07/09; 1 on 10/07/10; 3 on 23/07, 1 on 30/07/2011; 1 on 21/07/2013; 1 on 12/07, 2 on 19/07, 2 on 26/07/2014; 4 on 27/06/2015, 10 on 04/07/2015; 3 on 21/07/2018; **2 on 04/07/2020, 1 on 31/07/2020**– saltmarsh

73.183 *Cirrhia gilvago* (Dusky-lemon Sallow) (UE) 1 on 06/10/07

73.197 *Conistra rubiginea* (Dotted Chestnut) (NS-B) - 1 on 07/04/2018

73.248 *Orthosia opima* (Northern Drab) (UE). 3 on 14/04/07, 1 on 21,28/04/07; 3 on 26/04/08; 1 on 10/04/10, 2 on 24/04/10, 13 on 01/05/10; 1 on 07/04/2018

73.292 *Mythimna favicolor* (Mathew's Wainscot) (NS-B) 1 on 28/06/08 – saltmarsh; 1 on 03/07/10, 2 on 10/07/10; 2 on 27/06/2015; 1 on 03/08/2018, 1 on 11/08/2018, 1 on 18/08/2018

73.300 *Mythimna l-album* (L-album Wainscot) (NS-B) 1 on 15,22,29/09/07, 3 on 21/06/08, 2 on 05/07/08, 2 on 20/09/08, 1 on 13/06/09, 1 on 19/09/09; 1 on 03/07, 17/07, 31/07, 18/09, 02/10/10 and 3 on 09/10/10; 1 on 11/06, 03/09, 10/09, 2 on 17/09/2011, 12 on 16/09/2012; 1 on 22/09/2013; 2 on 03/10/2015; 2 on 24/09/2016; 2 on 24/06/2017; 1 on 08/09/2018; 1 on 01/06/2019; **1 on 30/05/2020, 1 on 13/06/2020, 1 on 12/09/2020**

73.316 *Agrotis cinerea* (Light Feathered Rustic) (NS-B) – 1 on 20/06/2020

74.002 *Meganola albula* (Kent Black Arches) (NS-B) 1 on 07/07/07; 3 on 04/07/09; 2 on 26/06/10, 3 on 03/07/10, 2 on 10/07/10; 6 on 14/07/2013; 1 on 12/07, 1 on 20/09/2014; 1 on 27/06/2015, 6 on 04/07/2015; 4 on 16/07/2016; 3 on 24/06/2017; **2 on 13/06/2020, 4 on 20/06/2020, 2 on 04/07/2020, 1 on 19/09/2020** - S&SE coasts



Figure 18: Kent Black Arches

Status Uncertain:

35.0191 *Anarsia innoxia* – 1 on 24/06/2017

This species was confirmed to be British, in a paper published in March 2017, based on a specimen from my garden in Westcliff-on-sea, trapped on 01/07/2015, and presented on my moth website – more information at <https://britishlepidoptera.weebly.com/0191-anarsia-innoxia.html>

More common species new to Foulness in 2020

15.006 *Caloptilia rufipennella* - 1 on 15/08/2020

35.060 *Apodia bifractella* – 2 on 08/08/2020

37.038 *Coleophora lineolea* – 1 on 13/07/2020

37.050 *Coleophora albidella* – 1 on 20/06/2020

37.069 *Coleophora caespitiella* – 1 on 13/06/2020

38.037 *Elachista canapennella* – 1 on 09/05/2020

49.029 *Lozotaenia forsterana* – 2 on 13/06/2020, 1 on 20/06/2020

49.092 *Phtheochroa inopiana* – 1 on 04/07/2020

49.103 *Phalonidia affinitana* – 1 on 13/06/2020, 1 on 20/06/2020

49.162 *Celypha rosaceana* – 1 on 20/06/2020

49.311 *Dichrorampha aeratana* – 1 on 30/05/2020

49.313 *Dichrorampha acuminatana* – 1 on 16/05/2020, 1 on 30/05/2020

63.054 *Cydalima perspectalis* (Box-tree Moth) – 1 on 31/07/2020

63.067 *Eudonia lacustrata* – 4 on 13/06/2020 (common species with several previous records for Foulness but omitted from list)

70.127 *Horisme tersata* (Fern) – 1 on 13/06/2020

70.137 *Perizoma albulata* (Grass Rivulet) - 1 on 13/06/2020

70.198 *Lobophora halterata* (Seraphim) – 3 on 16/05/2020

72.063 *Lygephila pastinum* (Blackneck) - 2 on 13/06/2020

73.222 *Apterogenum ypsilon* (Dingy Shears) – 1 on 20/06/2020

73.264 *Lacanobia thalassina* (Pale-shouldered Brocade) – 1 on 13/06/2020, 2 on 20/06/2020



Figure 19: Dingy Shears

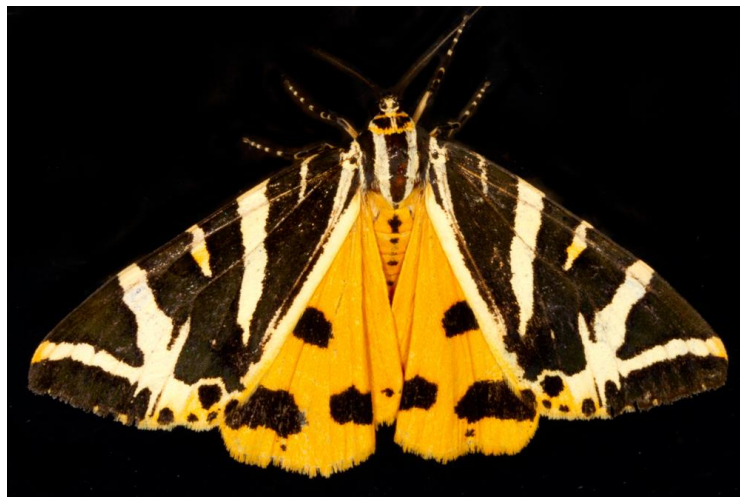


Figure 20: Jersey Tiger

The standard form of Jersey Tiger has a red hindwing – previous Foulness specimens have been of this standard form. This year all 3 specimens were of the yellow hindwing form *lutescens*.

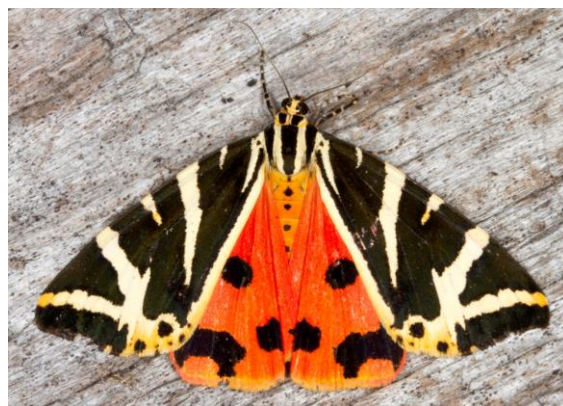


Figure 11: Jersey Tiger

I feel I'm still very much a beginner to mothing but have just added my records to my growing garden list and appreciate all the help given for identifications/verifications! I started in 2014, having been given a Robinson twin 30w actinic trap (with ID books) as a birthday present and managed to list 39 moths that year. My garden list in 2020 now stands at 263 which I constantly find amazing.

I live in South Hornchurch – a residential area with masses of street lights. Not far from me I have the Ingrebourne/Hornchurch Country park, the Beam Valley & Dagenham Chase and Rainham Marshes & the Thames riverside – so it is not all bad news!

In the last 2 years, as my personal life was very limited, I only trapped 15 times each year – nowhere near as much as I would have liked – but maybe 2021 will allow me more freedom to trap more regularly. I am now getting used to my regulars eg **Pale Mottled Willow** and with help I have increased the number of micros identified.

This year I caught a total of 117 species with 20 new to the garden. So far I have not ever trapped in winter – usually stopping around October and starting again in March. I saw my first **Winter Moth** on the kitchen window this year and shall look forward to see those from the Nov-Feb period when my life is back on track one day.

Highlights for me in 2020 might well be common to others but here they are: **Small Emerald**, *Oncocera semirubella*, *Promalactis procerella*, **Pebble Prominent**, **Scarce Silver-lines** & *Lyonetia clerkella*.



Oncocera semirubella



Rhyacionia pinicolana

Ones I have also enjoyed seeing, only seen once or twice before, are: *Rhyacionia pinicolana*, **Garden Tiger**, **Spectacle**, **Twenty-plume Moth**, **Peppered Moth**, **White Satin**, **Garden Pebble**, **Lime Hawk**, **Buff Ermine** & **Cream-spot Tiger**.



Promalactis procerella



PEBBLE PROMINENT

(E.B.)

Regulars each year in numbers are **Jersey Tigers**, **Box tree Moths**, **Gypsy Moths** & **Oak Processionary**. I also always have **Cyprus Carpet**, **Bee Moths**, **Lackey**, **L-Album Wainscot** & **Dark Arches** annually.

Looking forward to the new season and want to thank everyone who has helped me in the moth group!

November 24th 2019 was a memorable day for me, I trapped a **Black-spotted Chestnut** in my Corringham garden, a first record for Essex. That same night I also caught an **Oak Rustic**, also a rare moth for Essex. I was understandably intrigued as to what 2020 might bring. I was not to be disappointed.

On November the 21st I caught another **Black-spotted Chestnut**, then a second on the anniversary date of the 24th. I was to catch two more before the year end, on December the 19th and the 22nd. Photographs showed them to be different individuals.

It would be interesting to know where they originated from, was it the Kent colony, just across the Thames or were they indeed new arrivals. The November dates produced 5 and 3 Silver y moths respectively, none on the December dates



BLACK-SPOTTED CHESTNUT - 24/11/20



BLACK-SPOTTED CHESTNUT – 19/12/20



BLACK-SPOTTED CHESTNUT – 22/12/20

(K.L.)

MARKS HILL, LANGDON HILLS



This **Gypsy Moth** caterpillar was found in an old dormouse box by Peter Furze at Marks Hill reserve, Basildon on 18th July 2020.

(P.F.)

I first started mothing in my Chingford garden around 2000, and trapped sporadically for a couple of years before university and then employment impacted my efforts. Fortunately working at Bird observatories across far flung places gave me plenty of mothing experience so it was with a sense of excitement that I approached my 2020 mothing summer. Whilst my garden is only small, being 60ft x 20ft it is situated very close to Epping Forest.

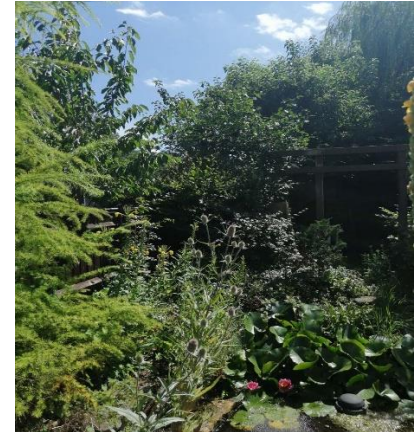
Without a doubt the highlight wasn't from a trap but came when I spotted some day-flying micros around a Hart's tongue fern planted by a small pond. They turned out to be *Psychoides verhuella*, a new species for Essex. Whilst the fern was planted in the garden, it must have been over 20 years ago. A look later in the autumn produced feeding signs of the larvae indicating that they are breeding as well.



Psychoides verhuella



HART'S TONGUE FERN



BACK GARDEN

The species list grew rapidly through the summer, particularly in respect to micros. I finished the year with just under 300 species across all years with large gaps particularly amongst spring and autumn species. Highlights included *Grapholita lobarzewskii*, *Dystebenna stephensi* and *Povolyna leucapennella*.



Grapholita lobarzewskii



Povolyna leucapennella



***Povolyna leucapennella* (R.C.)**

It was a strange season for Macros with very low numbers compared to what I remember. For example just 26 **Heart and Dart** with a max. of 8 and just 43 **Large Yellow Underwing** with a max. of 10! **Hawkmoths** were scarce as well, for a time the only species I'd caught were **Small Elephant** and **Privet**, both new species for the garden. It has been interesting to see the appearance of species like **Tree-lichen Beauty**, **Jersey Tiger** and **Gypsy Moth** in recent years and catching my first dark form **Box-tree Moths**.

Migrants didn't feature too much in my traps but did include a *Palpita vitrealis* on 12th August.

I'm hoping to be able to get some mothing in during summer 2021 but we'll see how life pans out! Thanks to everyone in the Essex Moth Group for the I.D confirmations, encouragement and community.

A year disrupted by Covid but at least it didn't really interfere with moth trapping in my garden.

I have had several notable records including *Caloptilia honoratella* 2/8/20 verified by Colin Plant (Herts & Middx recorder) and is probably new to Essex. I originally thought it might have been *C. hemidactylella* and needed confirmation but on dissection it was a female *C. honoratella*, a continental species with first UK record in Apr 2019 in Kent followed by a second from Suffolk in Sept 2019 with several more in 2020 and also from Norfolk Aug 2020.

Psychoides filicivora 28/4/20 another scarce Essex species and new to my site was taken from the inside of my kitchen window and although its larvae can feed on indoor ferns I don't have any but there's plenty of *Dryopteris felix-mas* in Epping Forest near me.



Caloptilia honoratella



Caloptilia honoratella



Psychoides filicivora

Cosmopterix pulchrimella 5/8/20. A continental moth with first UK record in Dorset 2001 and scarce Essex species although one was included last year's report. A colourful little moth and very welcome in my trap.

A **Marbled Clover** 9/8/20 was another new species for me although several recorded in Essex. A migrant now resident in some parts of East Anglia and chalklands of S.E. England was caught in moth trap but also flies in sunshine.



MARbled CLOVER



COSMOPTERIX PULCHRIMELLA



GYPSY MOTH LARVA (R.B.)

Synaphe punctalis - 3/7/20 mostly a coastal moth also visited me again way over in West Essex.

Gypsy Moth - similar number of adult males 21 taken between 27/7 – 18/8 to last year but several larvae also found in garden earlier in year. A female pupa was also found when moving some pots but unfortunately suffered some injury and died before hatching.

Oak Processionary - 19 taken between 5-10/8 similar again to last year.

Jersey Tiger - Great to see these flying both day and night with 111 recorded against 125 in 2019

Cydalima perspectalis - Numbers seem to have stabilise with 104 recorded with 3 being the melanic form

More than 300 larger moths have been recorded from the Wanstead area, including some localised, declining and nationally scarce species, though one of the last - **Broom-tip** - has not been recorded since 2015. Mostly, the summary in the Butterflies and Moths of Wanstead Report, covers moths recorded on the 'patch' since Paul Ferris began running a trap in Capel Road in 2005, although the original pioneer was Colin Plant, who began light-trapping in the 1980s. Many changes have taken place since then, with some moths becoming scarcer or disappearing while others have colonised. Examples of the latter are **Jersey Tiger Moth** and **Gypsy Moth**. The rich diversity of moths was demonstrated in 2020, when 182 species of larger moths were recorded. With better coverage of Wanstead Flats and Park, as well as gardens around the periphery, undoubtedly more discoveries could be made.

Orange-tailed Clearwing – 16th + 17th June five to lure, **Yellow-legged Clearwing** – 20th June lure and 30th July, **Currant Clearwing** 30th May, **Emperor Moth** – 13th April, **Small Elephant Hawkmoth** – 21st and 26th May, 9th June, 12th + 13th June, **Oak Processionary Moth** – 6th May sprayed, 31st July – 9th August fourteen incl. 8 on 9th August, **Buttoned Snout** - 21st May-14th June with three on 14th June, **Gypsy Moth** – 25th April larva, 31st July – 15th August five, **Plumed Fan-foot** -14th September, **Dewick's Plusia** – 6th July and 26th August, **Toadflax Brocade** – 24th – 25th April two, 21st May, 29th July, **Marbled Green** – 25th June, **Kent Black Arches** 25th June.

NOTABLE MICROS OF WANSTEAD

TIM HARRIS

Here are a few of the 2020 micros which were certainly notable for me and may be possibly of interest in an Essex context. *Clepsis dumicola* certainly will be. It seems to be spreading in London. Please note, these individuals were confirmed by photos, not specimens.

15.084 **Maple Midget** *Phyllonorycter acerifoliella*

16 July 2020, Belgrave Road, Wanstead. Confirmed from photos by Sean Foote, Mick Acourt and Ben Sale.

49.0372 *Clepsis dumicolana*

14 June 2020, Barclay Road, Wanstead. Confirmed on iRecord (first UK record 2014) from James Heal photograph.

49.143 *Eudemis porphyra*

30 June 2020, Belgrave Road, Wanstead. Confirmed from photos by Sean Foote.

49.266 **Bright Bell** *Eucosma hohenwartiana*

2 July 2020, Belgrave Road, Wanstead. Confirmed from photos by Sean Foote.

49.334 **Scarce Pine Piercer** *Cydia cosmophorana*

31 July 2020, Belgrave Road, Wanstead. Confirmed from photos by Mick Acourt and Sean Foote.

It has certainly been the strangest of years for everyone, and having an excuse to get out and about for exercise beyond the confines of the garden has been a lifeline for many of us with more than a passing interest in Natural History. I'm fortunate in having Wheatley Wood, a Woodland Trust property, just a stone's throw from our house and on my time out from work I would usually have a wander around the site for some much needed fresh air, accompanied by my notebook, of course!

Unfortunately I didn't locate any **Green Hairstreaks** as in 2019, but at least I encountered my first **Silver-washed Fritillary** at Wheatley Wood whilst it briefly imbibed from bramble blossom along a sheltered path on a very breezy day. There are also numerous small enclaves of herb-rich grassland areas at the site which harbour some localised moth species such as *Epichnopterix plumella* and *Coleophora conspiciuella*, as well as the more frequent **Burnet Companion**, **Mother Shipton** and **Six-spot Burnet**.

During the summer I made a number of trips out to local sites that I have been surveying for a number of years, namely Canvey Wick SSSI and a privately owned section of Hockley Woods where I have an access key. Both sites continue to reveal numerous new species, and no doubt this will still be the case for any future visits. Canvey Wick is still very much an on-going project, and anyone with a specialised interest in a particular group of insects will find plenty to occupy their time as you just never know what might turn up.



The **Great Silver Water beetle** (*Hydrophilus piceus*) certainly appears to have a stronghold here as they frequently crash land around the traps - but the moth fauna is possibly one of the best in Essex, if not S.E. England.

Some notables from last year include **Rest Harrow**, **Double Lobed**, *Chionodes distinctella*, *Gynnidomorpha alismiana*, *Monochroa palustrellus*, *Carpatolechchia alburnella* and the **Plumes** *Cnaemidophorus rhododactyla* (**Rose plume**) and *Hellinsia carpodactyla* (**Citron plume**).

Even after well over a century of visits to a site within Hockley Woods I'm still astounded to be finding new species, despite a general lack of ground vegetation. Far and away the most impressive moth was the **Dark Crimson Underwing** (pictured right) that landed next to the trap one evening, prompting me to wonder if the species could be breeding in this extensive woodland setting, much of it dominated by mature oaks. A little over a week later another visit revealed a second insect at one of the traps left overnight, so the potential for them to be offspring of migrants from previous years seemed a real possibility



(G.B.)

There are definitely other sites in south Essex that would be worth re-visiting this season, such as Thorndon Park and Grays Gorge, and I could virtually guarantee these would turn up some excellent finds amongst their indigenous moth fauna. Obviously we will have to wait and see what unfolds during the course of 2021 to see how far (and for how long) we can travel to our favoured destinations. Otherwise it could just be an even more in-depth survey of Wheatley Wood for another summer!

On the list below, where I have added (GD) after the date of a particular species, this denotes that the moth(s) in question were identified by genitalia dissection.

RAYLEIGH GARDEN

Sloe Carpet – total of eleven between 2nd and 18th April, with five on 11th.

Acleris literana – 11th April (2).

Toadflax Brocade – easily the best season for this species in my garden with a total of fifteen noted. First record on 17th May and last on 4th August (3).

Argyresthia trifasciata – 21st May and 2nd June.

Choristoneura hebenstreitella – 21st and 26th May.

Argyresthia cupressella – 26th May, 2nd and 9th June.

Platytes cerussella – 9th June.

Elegia similella – 14th and 24th June.

Blackneck – 17th, 24th (5 noted) and 26th June.

Chrysoclista linneella – 24th June.

Festoon – 25th June (2) and 4th, 13th, 15th (2) and 16th July (3).

Dichrorampha vancouverana – 30th June (2).

Metzneria metzneriella – 30th June.

Obscure Wainscot – 30th June and 8th July.

Small Ranunculus – 30th June (2), 24th July (on buddleia) and 13th August.

Gypsy Moth – full grown larva found on wall in back garden, pupated on 7th July and female emerged on 22nd July. No other larvae found. In trap males noted as follows – 31st July and 7th (3), 9th, 10th, 11th (2) August.

Coronet – 7th July and 1st, 2nd, 9th, 13th, 14th, and 15th August.

Clancy's Rustic – 9th July and 21st and 22nd September.

Cream Wave – 9th July.

Coleophora conspicuella – 9th and 12th July.

Lappet – 13th July.

Hummingbird Hawkmoth – 13th August at 19.30 on buddleia.

Gelechia senticetella – 15th July.

Oidaematophorus lithodactyla – 18th July.

White Satin – 22nd July.

True Lover's Knot – 24th July

Stathmopoda pedella – 24th and 31st July.

Dewick's plusia – 26th July.

Aspilapteryx tringipennella – 26th July.

Coleophora hemerobiella – 27th July

Oak Processionary – 31st July, and 1st, 2nd, 5th (6), 6th (3), 7th (2), 9th (3), 10th (2), and 11th (2) August.

Acleris cristana – 4th August.

Suspected – 5th August.

Twin-spotted Wainscot – 5th August.

Rest Harrow – 7th August. Possibly a wanderer from a colony further south or perhaps a migrant as an influx occurred at about this time.

Evergestis pallidata – 8th August.

Cydia amplana – 8th, 10th, 11th (2), 12th (4), 23rd August and 15th September.

Ancylosis oblitella – 8th August and 14th and 15th September.

Ypsolopha horridella – 9th August and 8th September.

Sharp-angled Peacock – 10th August.

Red-belted Clearwing – female noted in the conservatory on morning of 11th August.

Palpita vitrealis – 13th August, 4th September and 3rd October.

Rosy Wave – 12th August.

Cypress Pug – 12th, 26th, 27th August and 1st and 4th September.

Pale Eggar – 14th, 17th, 26th, 27th (2) August and 1st, 3rd and 4th September.

Choreutis pariana (Apple-leaf skeletoniser) – 23th August.

Ptocheuusa paupella – 3rd September (2).

Hedge Rustic – 12th and 13th September (different moths).

Orange Sallow – 14th September (a garden first).

Coleophora versurella – 14th September (GD).

Ypsolopha sylvella – 19th September and 5th and 19th October.

Autumnal Rustic – 19th September (2).

Convolvulus Hawkmoth – 20th September. My first in the wild since September 1988 in the south of France!

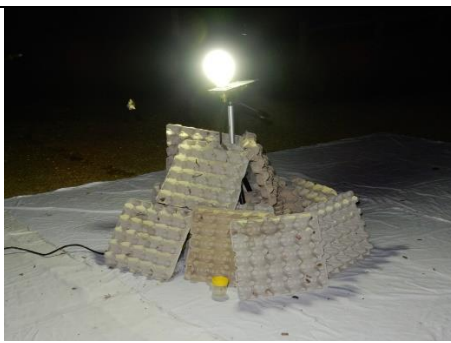
Monochroa palustrellus – 22nd September.

Merveille du Jour – 22nd September (2), 3rd, 7th (2), 12th, 14th (2), 16th (2), 18th (3), 19th, 20th (4) October, and 8th and 9th (2) November. Easily the most I've ever seen of this species!

Diurnia lipsiella – 8th November



HOCKLEY WOODS



MV BULB ON TRIPOD



CONVOLVULUS HAWKMOTH



ORANGE SALLOW



BARRED SALLOW – orange & normal



OAK EGGER



AUTUMNAL RUSTICS



GYPSY MOTH reared from larva



MERVEILLE DU JOURS



PHOENIX



PINE CARPET



RED-BELTED CLEARWING



CLANCY'S RUSTIC



SCARCE SILVER LINES



WHITE-LINE SNOOT

		
<i>Bisigna procerella</i>	<i>Chrysoclista linneella</i>	<i>Aspilapteryx tringipennella</i>
		
<i>Scrobipalpa ocellatella</i>	Citron Plume	Crescent Plume
		
<i>Dichrorampha vancouverana</i>	<i>Diurnea lipsiella</i>	<i>Epinotia cruciana</i>
		
<i>Epinotia demarniana</i>	<i>Evergestis pallidata</i>	<i>Gelechia senticetella</i>
		
<i>Metalampra italica</i>	<i>Palpita vitrealis</i>	<i>Platytes cerussella</i>

CANVEY WICK SSSI

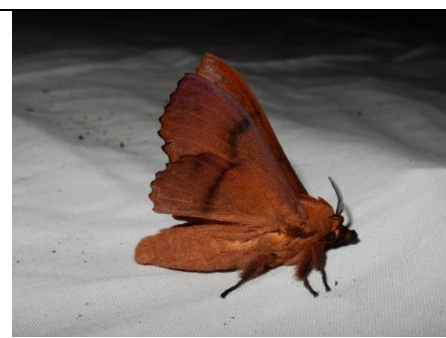
Yellow Horned – 23rd February (10 noted).
Lamoria zelleri – 20th June and 16th July (5).
Marasmarcha lunaedactyla (**Crescent plume**) – 20th June.
Cnaemidophorus rhododactyla (**Rose plume**) – 20th June (2).
Blackneck – 20th June (5) and 16th July.
Lappet – 20th June and 16th July (20).
Obscure Wainscot – 20th June (7), 16th July (13) and 7th August (2).
Rosy Wave – 20th June.
Bordered Sallow – 20th June (2), 16th July (4) and 1st August.
Star-wort – 20th June, 16th July (4) and 7th August (2).
Small Elephant Hawkmoth – 20th June.
Oedaematophorus lithodactyla – 20th June and 16th July (3).
Aethes beatricella – 20th June (3).
Pexicopia malvella – 20th June (4).
Garden Tiger – 16th July (3), 1st and 7th August (6).
Lesser Cream Wave – 16th July (7) and 7th August.
Dotted Fan-foot – 16th July (5).
Coronet – 16th July.
True Lover's Knot – 16th July.
Sitochroa verticalis – 16th July and 7th August.
Cochylidia heydeniana – 16th July (3), 7th August (3) and 7th (5), 15th (2) and 22nd (3) September.
Celypha rosaceana – 16th July and 7th September.
Caloptilia populetorum 16th July (2).
Cochylidia implicitana – 16th July (2).
Carpatolechia alburnella – 16th July and 7th August.
Acleris logiana – 16th July.
Reed Dagger – 16th July (5).
Silky Wainscot – 16th July (2).
Gypsy Moth – 16th July and 1st (4), 7th August (15).
Dewick's Plusia – 16th July and 1st August.
Double Lobed – 16th July.
Rest Harrow – 1st (3) and 7th August (3).
Waved Black – 1st August (2).
Oak Processionary – 1st (4) and 7th August (5).
Poplar Kitten – 1st August.
Small Wainscot – 1st and 7th August.
Agonopterix purpurea – 1st August.
Gynnidomorpha alismiana – 7th August (GD).
Hellinsia carphodactyla (**Citron plume**) – 7th August (GD).
Agdistis bennetii (**Saltmarsh plume**) – 7th August (2).
Dog's Tooth – 7th August.
Marbled Green – 7th August (3).
Crescent - 7th August (2).
Endothenia marginana – 7th August and 15th September (both GD).
Pale Eggar – 7th and 28th August.
Delicate – 7th September.
Sandhill Rustic – 7th (2) and 15th (10) September.
Chionodes distinctella – 9th September (GD).
Dichrorampha simpliciana – 15th September (GD).
Hedge Rustic - 15th September.
Monochroa palustrellus – 15th September.
Clancy's Rustic – 22nd September.
Depressaria radiella (**Parsnip moth**) – 22nd September.
Scrobipalpa ocellatella (**Beet moth**) – 22nd September (GD).
Palpita vitrealis – 8th November.
Large wainscot – 8th November (66). Easily the commonest moth of the evening.



GARDEN TIGER



SMALL ELEPHANT HAWK



LAPPET



YELLOW HORNED



REST HARROW



PALE EGGAR



DEWICK'S PLUSIA



DELICATE



CRESCENT



STAR WORT



OBSCURE WAINSCOT



LESSER CREAM WAVE



WHITE-LINE DARTS



MARBLED GREEN



Albino RINGED CHINA MARK

		
<i>Ancylosis oblitella</i>	<i>Celypha rosaceana</i>	<i>Gynnidomorpha alismans</i>
		
<i>Chionodes distinctella</i>	CRESCENT PLUME	<i>Monochroa palustrellus</i>
		
<i>Eucosma obumbratana</i>	<i>Carpatoleuchia alburnella</i>	<i>Cochylidia heydeniana</i>

HOCKLEY WOODS – PRIVATE SITE

Elegia similella – 24th June and 30th July.

Agnoea josephinae – 24th June (2).

Agnoea subochreella – 24th June (2).

Epinotia cruciana – 24th June.

Phoenix – 9th July (3).

Olive Crescent – 17th and 22nd July.

Coronet – 17th (2), 22nd (2) and 30th July.

Bisigna procerella – 17th and 30th July (3).

Epinotia demarniana – 17th July.

Roeslerstammia erxlebelli – 17th (3), 22nd (2), 30th July (8) and 11th August (20).

Metampra italica – 17th and 22nd July, and 11th August.

Dark Crimson Underwing – 22nd and 30th July. May possibly be breeding in the woodland as the offspring of previous migrants.

White-line Snout – 22nd July (2).

Evergestis pallidata – 22nd July.

Waved Black – 30th July.

Caloptilia populetorum – 30th July.

Acleris cristana – 11th August.

Gypsy Moth – 11th (2) and 27th August.

Small Wainscot – 11th August.

Clay Triple-lines – 11th August.

Acleris logiana – 18th October (GD).

Merveille du Jour – 18th October – my first record here despite well over a hundred visits throughout the years from 2004!

Northern Winter Moth – 21st November (2).



***Roeslerstammia*
*erxlebella***



Toadflax Brocade larva



Gypsy Moth larva



**Robin-feast -
where to start!
(G.B.)**

DAW'S HEATH NATURE RESERVE

Only a single recording trip in 2020, this being on the evening of the 18th October - the skies fully overcast but rather cool and virtually no breeze. I had very few autumn species from this site, and it turned out to be a trip where I noted most of those I had hoped to see, albeit in small numbers. It was definitely a case of quality rather than quantity! Of note were the following:

18th October 2020

Pine Carpet, Merveille du Jour, Grey Shoulder Knot, Blair's Shoulder Knot, Figure of Eight, Feathered Thorn, Yellow and Red-line Quakers, Green-brindled Crescent, Barred Sallow (inc. orange form), **Brindled Green, Brick and Dark Chestnut**. A total of 22 species, of which twenty were macro moths.

ONE TREE HILL COUNTRY PARK

During a ramble around the Langdon Hills on 20th May I noted my first **Grass Rivulet** (pictured right) on the slopes of Summerhouse Field below One Tree Hill. After many years of recording butterflies and day-flying moths around the area I eventually managed to catch up with this elusive species in Essex. The larvae feed on yellow rattle, of which there is no shortage in many of the local unimproved meadows. The moths are not seen that often, which makes me wonder if some of the grassland management is a little too aggressive for this and many other Lepidoptera. However, there are certainly some meadows that are mowed with due care and affection and these have shown how productive such sites can be for a wide variety of wildlife, especially the invertebrates. (Pic. G.B.)



Tim Green, timgreen2201@outlook.com

I have been studying and recording moths in and around Magdalen Laver, near Harlow, Essex since we moved to the village in 1996. Most recording has taken place in the garden where light traps have been operated on most nights of the year since 2004 and casual recording of daytime observations, early stages and leaf mines has been carried out. Altogether, a total of 894 species have been identified from the garden.

2020 was a very productive year, due to the extra time available after retiring in March 2020 coupled with more time at home with COVID related travel restrictions. I took this opportunity to light trap more frequently and intensively and to work a lot more with pheromone lure traps.

Light traps (MV Skinner with either or both MV Robinson and Actinic Skinner) were operated in the garden on 307 nights, ranging between 1 and 3 traps per night to give a total of 750 trap-nights. Missing nights were mostly in the height of the season in July and August or February/March when I was able to travel to trap in France. Altogether, 20,494 moths were recorded with a total of 588 species.

Table 1 – Light Trapping regime and results

Month	Days trapped	Days missed	Traps x Days	Species recorded	Total Moths
January	31	0	62	12	44
February	22	6	44	15	43
March	23	8	46	19	220
April	30	0	60	80	651
May	31	0	73	198	2,495
June	29	1	86	294	5,598
July	9	22	23	194	2,008
August	11	20	22	210	4,036
September	29	1	58	127	2,921
October	31	0	93	90	1,091
November	30	0	90	43	300
December	31	0	93	16	62
Total	307	58	750		20,494

- Total number of species from all recording activities during 2020 = 588

Pheromone lure trapping was conducted from 5th April to 13th August with a wide range of commercially available and experimental lures presented in Funnel traps. These were regularly swapped and changed according to season and past performance and were left out for 24 hours a day so that the day-flying and night-flying moth responses could be noted. Over the season, 80 different species lures were used with a maximum of 62 deployed on any one day. Many of these were for species not found in the UK but were being used as part of a study to record non-target species attracted to a range of lures. The traps were mostly placed both in the garden or adjoining field and hedgerow and spaced as widely as possible and monitored 3-6 times a day which was quite a lot of work! Included in this data are a few traps that were placed away from the garden but in a nearby churchyard, green lane and farm reservoir.

Table 2 - Pheromone Trapping regime and results

Month	Days Trapped	Traps x Days	Species recorded	Total Moths
April	26	239	7	94
May	31	1,129	39	139
June	29	1,567	54	262
July	6	141	10	21
August	13	429	17	172
Total	105	3505		688

- Total of 394 records and 97 different species during the season

Compared to the most recent 10 years, 2020 was a record year for total moths, number of species recorded and for the numbers of new species added to the garden list. 20,494 moths of 572 different species were recorded in the garden which was the highest species total ever recorded and well above the average of the previous 9 years (438). Of these, 49 were new to the site, which was the highest number added in a year since the early years of recording and well above the average of 15 added per year over the previous 9 years. Many of the new species recorded in 2020 were as a result of the intensive pheromone trapping which added 20 of the 49 new species (41%) which was a similar percentage as 2019. However, some species have undergone significant range expansion in southern Britain and were recorded for the first time in the garden presumably as new colonists in this area of Essex and some were recorded as repeat captures in significant numbers. It is difficult to compare the data between years as recording effort has varied considerably but overall, the impression is that despite increased trapping, lower annual totals of moths have been recorded in recent years. The average annual total over the previous 9 years (2011-2019) was 14,470 and for the 10 years between 2004-2013 was 22,300.

Year	Species recorded	Total Moths	New species for garden	New species from lures	Lure % of additions
2020	572	20,494	49	20	41%
2019	432	14,270	17	7	41%
2018	461	17,032	18	5	28%
2017	414	10,943	6	0	
2016	381	13,597	11	0	
2015	418	12,173	10	0	
2014	420	13,942	2	0	
2013	519	19,435	21	0	
2012	400	9,993	11	0	
2011	494	18,849	39	0	
Average 2011-2019	438	14,470	15		

Of the new species for the garden, 10 were macro moth species and 39 were micros. Quantities, dates and methods are shown for all the new species in Table 3 below.

Table 3 – New species recorded in the garden for the first time in 2020.

Code	New species	Qty	Dates	Method
4.013	<i>Stigmella malella</i>	7	30-Jul, 26-Oct	Mines on apple
4.030	<i>Stigmella hybnerella</i> *	1	15-May	POM lure (💡!)
		1	28-Oct	Mine on Hawthorn
4.042	<i>Stigmella plagiolella</i>	4	09-Sep	Mine on Blackthorn
11.012	<i>Psyche casta</i>	3	24-Jun, 25-Jun	Light trap
12.02	<i>Nemapogon variatella</i> *	1	07-May	Tab lure
12.023	<i>Triaxomasia caprimulgella</i> *	3	14, 23, 26-Jun	LUN lure
12.035	<i>Niditinea striolella</i> *	1	16-Jun	LUN lure
12.048	<i>Psychoides filicivora</i>	1	02-Jun	TIP lure
14.012	<i>Bucculatrix bechsteinella</i> *	2	10-Aug	Light trap
		2	4-Nov	Mine on Hawthorn
15.005	<i>Caloptilia betulicola</i> *	1	30-Oct	Light trap
15.022	<i>Callisto denticulella</i>	14	18-May – 11-Jun	CAP lure
		7	14-Oct	Mine on Apple
15.046	<i>Phyllonorycter blancardella</i> *	25	16-Apr – 17-Jun	BLA/NIG lure (<i>blancardella</i>)
		1	26-Oct	Mine on Apple
15.047	<i>Phyllonorycter hostis</i> *	3	2-May – 15-May	BLA/NIG lure (<i>blancardella</i>)
15.075	<i>Phyllonorycter ulmifoliella</i>	1	31-Jul	Light trap
21.002	<i>Lyonetia prunifoliella</i>	1	31-Jul	Light trap
32.039	<i>Depressaria daucella</i> *	1	11-Apr	Light trap
35.060	<i>Apodia bifractella</i>	1	31-Jul	Light trap
35.118	<i>Scrobipalpa ocellatella</i> *	2	15-Sep, 22-Sep	Light trap
35.146	<i>Teleiopsis diffinis</i>	1	03-Sep	Light trap
35.156	<i>Recurvaria nanella</i>	1	07-Aug	Light trap
37.014	<i>Coleophora coracipennella</i> *	1	30-Jul	VIT lure (<i>P. vitrealis</i>)
37.015	<i>Coleophora serratella</i> *	2	17-Jun	COHEM lure
				(<i>C. hemerobiella</i>)
37.090	<i>Coleophora artemisicolella</i> *	1	10-Aug	Light trap
37.103	<i>Coleophora follicularis</i> *	1	02-Aug	Light trap
37.104	<i>Coleophora adspersella</i> *	2	27-Jun, 30-Jul	Light trap
37.108	<i>Coleophora salicorniae</i> *	2	07-Aug, 10-Aug	Light trap
40.007	<i>Mompha bradleyi</i> *	1	09-Apr	In shed
49.191	<i>Endothenia nigricostana</i>	2	02-Jun, 22-Jun	BLA lure & indoors
49.286	<i>Epiblema cirsiana</i> *	1	16-May	SPL lure (<i>Cyd. splendana</i>)
49.316	<i>Dichrorampha sequana</i> *	1	26-May	Swept from Yarrow
49.325	<i>Cydia ulicetana</i> *	2	9-May, 25-May	SPL lure (<i>Cyd. splendana</i>)
49.326	<i>Cydia medicaginis</i> *	1	20-Jun	CYCAR lure (<i>Cyd. caryana</i>)
49.356	<i>Grapholita lobarzewskii</i>	1	01-Jun	LOB lure
49.363	<i>Pammene argyrana</i> *	3	19-Apr – 2-May	FUN/OCE/VIT lures
49.364	<i>Pammene suspectana</i> *	3	22-Apr – 2-May	MOL lure (<i>Cyd. molesta</i>)
49.379	<i>Pammene aurana</i>	2	15-Jun, 20-Jun	GRPRU lure (<i>Graph. prunivora</i>)
52.003	Lunar Hornet Moth	1	23-Jun	LUN lure
62.023	<i>Pempelia palumbella</i>	1	26-Jun	Light trap
62.037	<i>Acrobasis marmorea</i>	1	25-Jun	Light trap
70.118	Brown Scallop *	1	17-Jun	Light trap
70.151	Foxglove Pug	1	02-Jun	Light trap
70.296	Rest Harrow	1	09-Aug	Light trap
71.001	Oak Processionary	12	31-Jul – 10-Aug	Light trap
72.027	Cream-spot Tiger	1	26-May	Light trap

72.076	Clifden Nonpareil	2	13-Sep, 15-Sep	Light trap
73.047	Coronet	12	21-May –12-Aug	Light trap
73.263	Light Brocade	1	21-May	BRA lure (<i>Mam.brassicae</i>)
		1	12-Jun	Light trap
73.339	Dotted Rustic	1	12-Jun	Light trap
73.360	Triple-spotted Clay	1	14-Jun	Light trap

Species marked with * have had at least one example confirmed by GD.

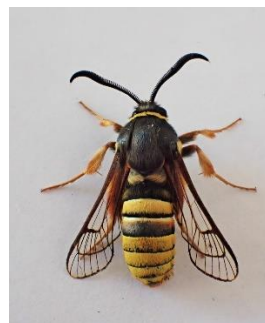
Of the macros, recent colonists include **Coronet** (*Acronicta ligustri*) and **Oak Processionary** (*Thaumetopoea processionea*), 12 examples of each were recorded with OPM being trapped between 31st Jul and 10th Aug and Coronet being present for both spring and summer generations between 21st May and 12th Aug. Both species seem to have been widely reported for the first time across the county in 2020, with **Coronet** moving eastwards and **Oak Processionary** northwards, although some Oak Processionary may well be primary immigrants. My lure for OPM failed to attract any despite being deployed whilst they were falling in the light trap at the other end of the garden! Everyone seemed to get a **Clifden Nonpareil** (*Catocala fraxini*) in 2020, so I was very pleased not to be left out and recorded two different individuals on 13th and 15th Sep. **Cream-spot Tiger** (*Arctia villica*) was a nice surprise on 26th May and is well outside its pre-2020 east-coastal range. Maybe it will colonise in a similar way to Jersey Tiger that now seems very widespread in the county. Similarly, **Rest Harrow** (*Aplasta ononaria*) on 9th August was the first Essex record in the west of the county and may well be a migrant. **Dotted Rustic** (*Rhyacia simulans*) is a species that was widespread in the 1980's but pretty much vanished for a few decades. It now seems to be making a bit more of a comeback with a few being recorded in recent years with my first garden record on 12th June.



CREAM-SPOT TIGER



REST HARROW



LUNAR HORNET MOTH



***Cydia medicaginis*
(T.G.)**

Many of the new micro moths are seemingly scarce in the county but are probably majorly under-recorded. This is especially the case for some of the day-flying species of tortricids and crepuscular tineids that rarely visit light traps but appear to be easier to detect and record using pheromone lures. Several recorders added representatives of the *Pammene* group of tortricids in 2020 using the FUN (*funebrana*) and other lures. *Pammene argyrana*, *P. suspectana* and *P. aurana* were all new to the garden in 2020 and join *P. albuginana*, *P. giganteana* and *P. fasciana* recorded for the first time at lures in 2019 but were all also recorded again in 2020. *P. suspectana* was previously only known from a handful of sites in the UK, but with lures has been found at a lot more sites in 2020, including several in Essex. ***Cydia medicaginis* (Alfalfa Moth)** came to an experimental lure for *Cydia caryana* (not a UK species) on 20th June. There is only one other Essex record of this pRDB2 species which was taken by Maitland Emmet at Grays Chalk Pit in 1979.



Nemapogon variatella



Pammene arygrana



Pammene aurana



Pammene suspectana

The new **Lunar Hornet Moth** (*Sesia bembeciformis*) lure did not disappoint with singles recorded in the garden on 23rd June and in a local damp green lane next to an overgrown pond on 24th June. Eight species of Clearwing have now been recorded in the garden, all of which have only been detected with the use of pheromone lure traps. Quite a range of tineids seem to respond very well to many of the Clearwing lures, including the new LUN lure described above. ***Nemapogon variatella*** was recorded to TAB lure in the garden on 7th May and again later in the local churchyard to API lure on 14th June. I believe others were recorded in the county in 2020, but this species was previously only known from one site near Braintree where a series was swept in 2011. Other *Nemapogon* species attracted to clearwing lures included ***N. koenigi*** and ***N. ruricolella***. The LUN lure also attracted a nice series of the rarely recorded ***Triaxomasia caprimulgella*** with 3 recorded in the garden on 14, 23 and 26th June and a total of 13 at two other local sites. This species was previously only known from a single individual at one site in the London area in 2017. Another rarely recorded tineid species attracted to the LUN lure was ***Niditinea striolella***, recorded from two sites including the garden on 11th and 16th June. A single ***Psychoides filicivora*** was recorded at the TIP lure on 2nd June. At the time it was the second Essex record after larvae were seen at Brightlingsea in 2016. I believe that others were also recorded in 2020 both at lures and as larvae. The potential for other tineid species to be recorded is significant and I have seen several other species recorded by others in the UK and by me when lure trapping in France.



Niditinea striolella



Psychoides filicivora



Triaxomasia caprimulgella



T. caprimulgella

Other new records from pheromone traps include a single ***Grapholita lobarzewski*** to its target LOB lure on 1st June, ***Cydia ulicetana*** on 9th and 25th May to OCE (*Spilonota ocellana*) lure. ***Callisto denticulella*** clearly responds strongly to the CAP (*Lampronia capitella*) lure and was new for the garden with a total of 12 between 18th May and 12th June. Bizarrely, two were recorded in the garden light traps for the first time also and mines were found on one of the garden apple trees. ***Phyllonorycter hostis*** is not widely recorded in Essex and three at lures (BLA and NIG) in the garden between 2nd and 15th May probably represent the 5th site in the county. Separation from the very similar and seemingly much more common ***P. blancardella*** is difficult and best achieved by GD. Both species respond to the BLA (*blancardella*) and NIG (*Cydia nigricana*) lure.



Callisto denticulella



Grapholita lobarzewski



Phyllonorycter blancardella



***P. hostis* (T.G.)**

The attractive phycitine, ***Pempelia palumbella***, was a welcome addition in the light trap on 26th June and is believed to be the 4th record and 3rd site for the county. Six additional *Coleophora* spp. were added to the garden list following an effort to retain for dissection a good sample of specimens over a range of dates. Two of these were recorded at lures (***C. coracipennella*** at VIT and ***C. serratella*** at COHEM) whilst singles of ***C. artemisicolella*** and ***C. follicularis*** and two each of ***C. adpersella*** and ***C. salicorniae*** were recorded at light. These new species take the total *Coleophora* count for the garden to 37 species. The VIT lure also attracted a total of 48 ***Coleophora robustella*** and 49 ***Argyresthia cupressella***.



Coleophora coracipennella



Coleophora follicularis



Pempelia palumbella

(T.G)

If any recorders have any data on non-target captures at lure traps that they are willing to share, I would be most grateful. Ideally, this would include species, recorder, date, site, number recorded etc., but any records would be useful as I am trying to collate as much of this as I can so that it can be published. The more data that is available will help build a better picture of how many of these findings are being repeated at other sites. Please contact me by email if you can help and thanks to all who have already supplied data: **timgreen2201@outlook.com**.