



With everything being so abnormal over the past year, I found it quite reassuring that at least winter was as it *should* be ... we had snow! And now we have all the familiar signs of spring, and can get outside more in the longer milder days. It's another taste of normality. Do remember to share your insect news and photos as you get out and about (even if you are only in your garden!); we enjoy your articles, and they also inspire others of us to get entomologising, using our cameras, and writing about what we've found. Glynis Harris (editor)

FROM THE PRESIDENT ...

WELCOME TO THE SPRING EDITION OF OUR NEWSLETTER

Saint David's Day (1st March) is one of my favourite days of the year. For me it marks the real start of the entomological year. By this time, in most years (including this one), reports of insect sightings start to come in. The usual four hibernating butterfly species – Brimstone, Small Tortoiseshell, Peacock and Comma are recorded. A fifth, and more recent, hibernating species, the Red Admiral, can now be added to this list of regular adult hibernators. However, the 1st of March is when things usually (weather permitting) start to heat up (insect-wise) and my optimism takes a distinct upturn.

February, however, has not been a barren time. The warm weather towards the end of the month has resulted in me finding in my garden in one day (22nd February) a 7-spot Ladybird, *Coccinella septempunctata*, the Marmalade Hoverfly, *Episyrphus baleatus*, and the carabid beetle *Paranichus albipes*; a portent of times to come.

Subject to improvement in the situation with Covid-19, DaNES will be re-starting its events programme in the summer. Our summer show is scheduled for 25th July at Shipley Country Park. DaNES will also be participating in the NightWatch Event which is scheduled at Rosliston for 30th July. Our main show normally takes place in November. We hope to be able to hold this event, but it involves a considerable amount of work over the spring and summer, and we are starting to see if it will be practical to proceed ... fingers crossed. As and when further events are planned the details will appear in this newsletter and on the society's Website and Facebook page.

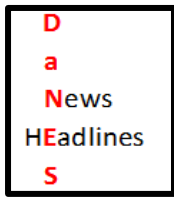
Phil Gilbert

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- Meet people who share your interest in entomology
- Take part in meetings, fieldwork, exhibitions, trips and social events
- Report your insect sightings for our database, to help with research and conservation
- Learn more about insects, and share your knowledge with others
- Join in with your news and conversation on our Facebook and Twitter
- Enjoy (and contribute to) this newsletter and other DaNES publications
- Make use of our society's entomology books, microscopes and collecting equipment

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DaNES NEWS



Latest news updates from your DaNES committee

By Russell Nevin

JOURNALS

Whilst activity is continuing with Part 1 of the Summary 2013-18 journal, we mustn't lose sight of the need to be working simultaneously on the 2020 journal. So, if you have any papers or reports which may be suitable for inclusion, do let Phil Gilbert know. Likewise, if you haven't yet sent in your 2020 records to Dave Budworth, please do so. [Kindly note: observations and articles are better suited to the newsletter, so please let Glynis Harris have these.] Phil would welcome any feedback about the 2019 journal, and also let him know if you have not received yours.

COMMITTEE MEETINGS

It seems incredible that it is now a year since the committee last met "in the flesh", and few of us had even heard of "Zoom" back then! But we have steadily realised its potential and will continue to meet virtually until the restrictions are eased.

WEBINARS

North West Invertebrates and the Tanyptera Trust have advised us of a number of webinars being held throughout March and April on subjects including mining bees, woodlice, shieldbugs and harvestmen. These are free, and full details can be found at <https://www.northwestinvertebrates.org.uk/> They run for about an hour, and are followed by a question and answer session. Some other events have already been held, but can be viewed on YouTube.

A38 DERBY WIDENING

Whilst DaNES hasn't generally become involved with "pressure group" campaigns, a request from one of our members to offer support with opposing the consequences of widening the A38 through Derby has been received. These plans will adversely affect a number of sites of natural history interest. More details can be found on the campaign group's website <https://www.a38derbychaos.org/> including how to offer support.

DaNES EVENTS

With the prospect of restrictions being eased by early summer, we would like to hear from members about events and field meetings you would like to see run. Please contact any member of the committee and let them know. Meanwhile, our Shipley summer event is planned for 25th July, and we would like to hear from anyone who has an idea for an exhibit, or who would like to help on the day. We are also currently investigating venue options for our next annual Insect Show.

SOCIAL MEDIA

The committee is currently investigating ways that we could improve our presence on Facebook and Twitter, and we are seeking advice about this.

MEMBERSHIP

A quieter time with less opportunity for recruitment has seen us lose one member who has sadly passed away, and lose another due to non-payment of subscription. If you haven't paid yours yet, please do so to continue receiving the benefits of membership.

EDITOR'S NOTE

To change from email to printed newsletters, or vice versa, contact Dave Budworth dbud01@aol.com or 01283 215188

DIARY DATES



27 th Mar	Butterfly Recorders' Annual Meeting	Via Zoom - 10am-1pm See https://butterfly-conservation.org/events/
8 th July -10 th	National Moth Night	Participate at home (or other locations, Covid-dependent) See https://www.mothnight.info/
16 th July -9 th Aug	Big Butterfly Count	Participate at home (or other locations, Covid-dependent) Details nearer the time on https://bigbutterflycount.com .
25 th July	DaNES Insect Day	Shipley Country Park Visitor Centre Covid-dependent / Details to be arranged
30 th July	NightWatch event	Rosliston Forestry Centre, or Zoom: Details nearer the time on https://www.facebook.com/EnvironmentalEducationProject
14 th Sept	DaNES AGM	Shipley Country Park Visitor Centre, or via Zoom - 7.30pm

Please check our website for DaNES updates <http://www.danes-insects.org.uk/>

I was deeply saddened to receive the news of Haydn’s death in hospital on 12th February. He was 88, and I think he was our oldest member in terms of age. A full obituary will appear in our 2021 Journal, so I shall just write a few words of remembrance here for the time being. Haydn was a quietly spoken, gentle man who maintained a deep love for natural history since childhood. He was fortunate to be able to retire in the early 1980s to spend more time with his wife Marjorie and his growing family and develop a passion for entomology, meeting fellow enthusiasts and eventually joining our society. This passion was infectious and it was a chance first meeting with him in a Sheffield bookshop in 1994 that encouraged me to resume my interest in entomology. He became a familiar face at DaNES events and, although slowing down a little, continued to attend field meetings until very recently. During the spring and summer months of 2006 to 2009, I took a large amount of time off work to motor the length and breadth of the country with him and these are amongst the happiest times of my life. Our hearts go out to his family and his close friends who will miss him dreadfully.

Haydn’s funeral was held at Hutcliffe Wood Crematorium, in Sheffield, on Wednesday 10th March.



SNIPPETS FROM OUR SOCIAL MEDIA

FACEBOOK <https://www.facebook.com/DaNESinsects>

- 29 Jan - Notice of a new beetle atlas by FSC being launched
- 24 Feb - Report that Honey Bees, *Eristalis tenax* and Buff-tailed Bumblebee were active at Hardwick Hall
- 9 Mar - Request for volunteers to help with butterfly recording at Avenue Washlands NR, Chesterfield

TWITTER https://twitter.com/danes_insects

- 1 Feb - News of a first 2021 butterfly sighting: a Small Tortoiseshell
- 24 Feb - Info about a first bumblebee sighting of the year: Southern Cuckoo Bee
- 1 Mar - Request for any sightings of Brown Marmorated Stink Bug to be reported to @iRecordWildlife

Remember - Facebook and Twitter are a great way to communicate and get involved with the society, especially as we are spread across two counties. News, views, photos and questions can be shared on our social media, conversations can be had, and there are links to other wildlife organisations. We can also report insect sightings for our database via our Facebook. LOG ON AND JOIN IN

Facebook manager Phil Gilbert pgilb10221@aol.com
 Twitter manager Kieron Huston morelemurs@talktalk.net

MAKING A VIDEO OF A TARDIGRADE

By Paul Chapman

This was a little project that I had been planning to do for a long time, but with lockdown/stay-at-home I had the perfect time to complete it in May last year (2020). Tardigrades, commonly called water bears, are classified as a phylum and thought to be closely related to arthropods. They are microscopic animals usually less than 0.5mm long, mostly found in temporary wet places on land such as in mosses, lichens and roof gutters. They can survive drying for long periods (years) and once back in a moist environment they rehydrate and become active again. When you read the list of other places some of them live in it seems to be everywhere - soil, leaf litter, streams, sand dunes etc. The fact that I found some in the first sample of moss I gathered might be some indication of how common they are. This article describes what I did to photograph and film one, using very cheap microscopy equipment, as that is all I currently have.

Stage 1: Collected a small clump of moss from the lawn and put it in a transparent food tray. Covered the moss with water and left to soak overnight to allow the tardigrades to rehydrate. Online guides say use rain or bottled water but not tap water because of the additives.



Stage 2 - Searching the moss for rehydrated tardigrades

Stage 2: Next day, searched the moss. I have a binocular microscope with x8.75 but I do not have a spot light, so I did this on a sunny day with direct sunlight on the tray and a white background underneath. Without a good light it would have been impossible to spot them and it took a long time to find one. Following the first, I soon found several more (about 5 in total) which was the first time in my life to see a tardigrade.



Stage 4 - Ready for taking pictures and videos

Stage 3: Caught and transferred the tardigrades to a smaller tray for taking pictures. A pipette would be ideal for this but I don't have one so I used a small syringe instead. This was quite tricky as the syringe end is much bigger than the tardigrades but I did get 2 of them transferred to a small petri dish. I lost the others.

Stage 4: Put petri dish under the digital microscope connected to laptop by USB. It's one of the very cheap models online (c £15) so more like a child's toy but for a small portable device it's a good starter. The stands that come with these are very poor so I got a separate stand (about another £15) and you can see this in the picture. It took a lot more patience to find the tardigrades again and home in on them with a suitable light (the LED lights on the microscope were good enough for this). I was not able to move the 2 tardigrades close enough together to photo/video them together.

Stage 5: Took picture and video, controlled from the laptop. As the microscope is just a type of webcam, probably most video capture programs could be used for this. I did this in Ubuntu Linux using webcam program Cheese, with a black background. Clearly my results won't win any awards but given my simple equipment I'm quite pleased with them.

The video is in the following DaNES Facebook post - <https://www.facebook.com/DaNESinsects/posts/2796257840625071>

What next?...

A better microscope, a pipette and a decent light source, then I can look for tardigrades in lots of other places.

For more info on tardigrades:-

Wikipedia article:

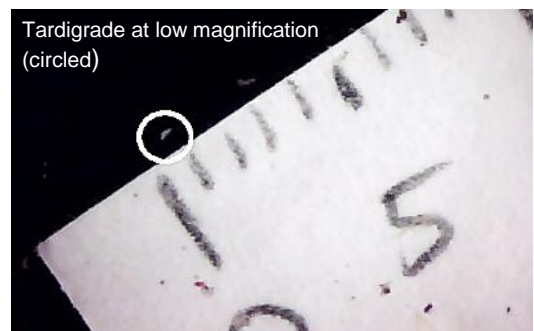
<https://en.wikipedia.org/wiki/Tardigrade>

The Tardigrade Animations Gallery:

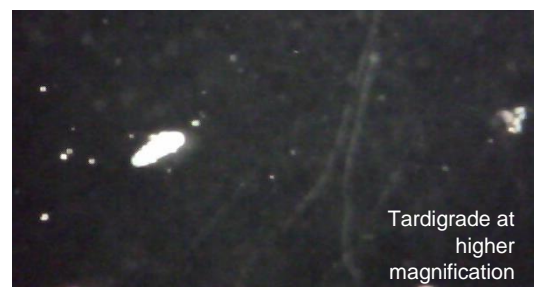
https://www.baertierchen.de/intro_engl.html

How to Find Tardigrades in Your Own Backyard:

<https://microcosmos.foldscope.com/?p=17901>



Tardigrade at low magnification (circled)



Tardigrade at higher magnification

STRANGE SOUNDS IN THE REEDBED

By Felicity Jackson

The Avenue Washlands Nature Reserve, Chesterfield, once part of an extensive coking works, is now, after a huge amount of remediation, an impressive wildlife site and one which I have only occasionally visited.

Searching for Orthoptera, with bat detector of course, I managed a visit on October 20, and picked up some sounds in the damp grassland in the reedbed area. A distinctive alternation of 'chugging' and 'ticking' sounds suggested Short-winged Conehead, *Conocephalus dorsalis*, but the only other place I had found these was on Studland heath, on the south coast. And it didn't quite sound right. I finally managed to spot one momentarily and yes, it did look like *C dorsalis*. The kind of habitat was right too.

Back near the reserve entrance, the detector picked up a couple of Long-winged Coneheads (*C fuscus*), in drier grassland, singing a laboriously slow song in the cool autumnal weather. I assume the *C dorsalis* song was slightly different because of being slow and rather creaky in the chill air; I had previously heard them at full pelt in the hot sunshine.

I now know that The Avenue's Short-winged Conehead population is one out of a few isolated 'islands' in Derbyshire, including two other sites in wetland along the north bank of the Trent. Like so many species, their range is spreading northwards. I will certainly be looking out for them in the right kind of habitat around Derbyshire. But weren't those bush-crickets lucky to find The Avenue, a place ready-made for them!



Short-winged Conehead at Studland

EARLIEST UK BUTTERFLY SIGHTINGS - JANUARY TO MARCH - 2010-2020

SIGHTINGS RECORDED BY BUTTERFLY CONSERVATION

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Red Admiral	5/1	1/1	1/1	1/1	2/1	1/1	1/1	1/1	1/1	1/1	1/1
Peacock	2/1	9/1	2/1	1/1	2/1	1/1	4/1	1/1	1/1	1/1	1/1
Small Tortoiseshell	1/1	18/1	6/1	1/1	2/1	2/1	1/1	2/1	10/1	1/1	1/1
Brimstone	17/1	8/1	2/1	1/1	2/1	5/1	17/1	10/1	5/1	1/1	4/1
Comma	4/3	19/1	8/1	8/1	2/1	2/1	6/1	20/1	10/1	28/1	4/1
Painted Lady	2/3	20/1	8/1	1/1	7/2	13/1	2/1	16/2	6/3	1/1	21/1
Speckled Wood	19/2	13/2	13/1	1/1	10/1	6/3	4/1	22/1	25/1	8/1	16/3
Small White	15/3	6/3	26/2	2/3	25/2	15/2	3/3	4/3	6/3	23/2	26/2
Holly Blue	24/3	17/3	9/3	-----	8/3	19/3	22/3	16/2	25/3	12/1	8/1
Large White	14/3	11/3	11/3	-----	7/3	25/3	14/3	16/2	-----	22/2	10/1
Green-veined White	15/3	12/3	10/3	-----	15/3	30/3	16/3	13/3	21/3	24/2	6/3
Small Copper	25/3	20/3	23/3	5/3	29/3	19/3	-----	9/3	14/3	5/3	24/3
Orange Tip	-----	22/3	11/3	27/2	16/3	19/3	26/3	15/3	-----	19/3	22/3
Clouded Yellow	-----	26/3	19/3	-----	26/3	24/3	25/3	26/3	-----	24/2	-----
Green Hairstreak	-----	29/3	24/3	-----	30/3	-----	30/3	25/3	-----	24/3	-----
Wall	-----	25/3	24/3	-----	26/3	26/3	-----	-----	-----	27/3	-----
Grizzled Skipper	-----	-----	24/3	-----	-----	-----	-----	-----	-----	30/3	31/3
Small Heath	-----	-----	26/3	-----	-----	-----	-----	26/3	-----	-----	-----
Small Blue	-----	-----	30/3	-----	-----	-----	-----	-----	-----	-----	-----

NOTE

- * The dates are the first sightings that were reported at the time and not retrospective reports.
- * In 2020 our movements were restricted due to the pandemic, and this may have affected the dates of first sightings.
- * Comparative 2021 dates not available when compiling this newsletter.

Red Admiral
(top of the list)

Photo by
Iain Leach



ODONATA OF NOTTINGHAMSHIRE AND DERBYSHIRE 2019-2020

BRITISH DRAGONFLY SOCIETY RECORDS

By Chris Bradbury

Banded Demoiselle, *Calopteryx splendens* - very common and widespread in both counties.

Emerald Damselfly, *Lestes sponsa* - widespread in Derbyshire, also Trent Valley and Idle Valley in Notts.

Willow Emerald Damselfly, *Chalcolestes viridis* - arrived in Notts in Sept 2020. First seen 1st Sept at Rampton, in north of county by David Hursthouse and photographed there 14th Sept. Further September reports came from Gringley on the Hill and Snape Wood, so it seems already widespread in Notts. No records for Derbyshire yet, but worth searching for.

Large Red Damselfly, *Pyrrhosoma nymphula* - recorded in both counties.

Red-eyed Damselfly, *Erythromma najas* - recorded in both counties.

Small Red-eyed Damselfly, *Erythromma viridulum* - has recently colonized both counties.

Variable Damselfly, *Coenagrion pulchellum* - 2-5 adults seen at Netherfield, Notts on May 25th 2019 (Robert Woodward).

Azure Damselfly, *Coenagrion puella* - is a widespread and common species in both counties.

Common Blue Damselfly, *Enallagma cyathigerum* - seems to be common as befits the name.

Blue-tailed Damselfly, *Ischnura elegans* - is another widespread and common species in both counties.

Common Hawker, *Aeshna juncea* - continues to be widespread in the Peak District. Although not currently known to breed in Notts, it breeds in nearby South Yorkshire and also in Lincolnshire. Almost annual visitor in small numbers in Notts mainly from July to mid-September, but no known records in Notts in 2019-20.

Migrant Hawker, *Aeshna mixta* - recorded in both counties.

Southern Hawker, *Aeshna cyanea* - recorded in both counties.

Brown Hawker, *Aeshna grandis* - is a common and widespread species in both counties.

Emperor Dragonfly, *Anax imperator* - had well distributed records from the 2 counties.

Vagrant Emperor, *Anax ephippiger* - first seen and photographed around a series of pits in north Notts by D Hursthouse in July 2019. Initially 2 males 7th July; 6 males and a female 17th July; 5 males 24th July. Last sighting 4 males on 8th Aug.

Lesser Emperor, *Anax Parthenope* - one male 17th July and 24th July 2019 at Misson (D Hursthouse). A pair at Netherfield on 6th, 7th, 8th, 10th August 2020 (R Woodward) seen ovipositing in tandem.

Hairy Dragonfly, *Brachytron pratense* - has been proved to be in Derbyshire based on a photo from Forbes Hole, Long Eaton (Marion Bryce 20.5.2019) This and a photo from Skylarks NR and another from R. Devon south of Newark encouraged me to accept further sightings in D'shire and Trent gravel pits from Attenborough to Langford Lowfields including previous years. This species is certainly expanding in range and I would like to see more photo records to future-proof the facts. 2019 provided 5 D'shire records from Ticknall Limeyards, Forbes Hole, Stanton North Lagoons, Markham Vale and 24 Notts records from the usual Idle Valley sites and the Trent valley plus Rushcliffe CP.

Golden-ringed Dragonfly, *Cordulegaster boltonii* - was recorded in the usual Derbyshire moorland areas. Barbrook and Ramsley area and also Burbage Brook produce most records, with searching.

Four-spotted Chaser, *Libellula quadrimaculata* - well distributed and common away from Peak District & Sherwood Forest.

Broad-bodied Chaser, *Libellula depressa* - is widespread in both counties.

Scarce Chaser, *Libellula fulva* - known on the River Soar north of Kegworth on even years since 2016 and I did manage a poor photo at 20m range from the Leicestershire footpath in 2020.

Black-tailed Skimmer, *Orthetrum cancellatum* - is widespread in both counties.

Keeled Skimmer, *Orthetrum coerulescens* - a fine male, the 3rd record for Derbyshire found and photographed at Seymour in Markham Vale by Mark Radford on August 15th 2019. It was searched for but not found 2 days later.

Common Darter, *Sympetrum striolatum* - is another widespread species in both counties.

Red-veined Darter, *Sympetrum fonscolombii* - produced a few records in 2019. I was lucky to find and photograph a male at Newstead and Annesley Country Park on June 29th and it was found again on 30th. Then a flood of them; one male at Lound 16th July 2019 (D Hursthouse). Then, at Misson, 27 males, and two females 7th July 2019; 18 males still present 17th July; 11 males 24th July; one male 29th July; 2 males 8th August (D Hursthouse).

Ruddy Darter, *Sympetrum sanguineum* - was recorded in both counties.

Black Darter, *Sympetrum danae* - very healthy breeding population in certain parts of D'shire Peak District. More common than Common Darter at former Ramsley & Barbrook Reservoirs & along Bar Brook (D Hursthouse). No recent Notts records.

SIGNIFICANT ODONATA SIGHTINGS 2019/20

1 WILLOW EMERALD (*Chalcolestes viridis*)

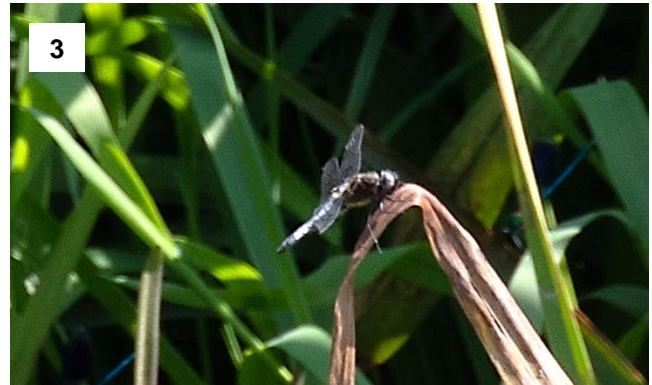
Sept 14th 2020 at Rampton, Notts
New species to the DaNES recording area in 2020
and the only one photographed.
Photo by David Hursthouse,

2 KEELED SKIMMER (*Orthetrum coerulescens*)

August 15th 2019 at Seymour, Markham Vale.
The third record for Derbyshire.
Photo by Mark Radford

3 SCARCE CHASER (*Libellula fulva*)

June 24th 2020. First photo in Notts from the Leics
bank of the River Soar, north of Kegworth.
Photo by Chris Bradbury



PLEASE REPORT RECORDS OF SIGHTINGS ...

to the British Dragonfly Society (using iRecord) and to DaNES records co-ordinator (see back of newsletter)

INSECTS IN THE NEWS

UK GOVERNMENT IS APPROVING USE OF BEE-KILLING PESTICIDE TO HELP FARMERS

In response to pressure from the National Farmers Union, the UK Government has given permission for emergency use of a banned pesticide as, last year, a virus significantly reduced sugar beet crops. The pesticide is a neonicotinoid, Thiamethoxam, which was banned by the EU in 2018 following a study which showed the serious environmental harm that it caused, especially to bees and other pollinators. Following further studies, an official report in 2019 said that environmental contamination by this pesticide was still causing largescale damage to our insect-life. Despite the ban on this pesticide, there have apparently been dozens of emergency permits for its use throughout Europe, and its emergency use is now being allowed in the UK.

Jan 2021 Info from

<https://www.independent.co.uk/climate-change/news/bees-kill-pesticide-insect-sugar-neonic-b1784693.html>

GERMAN GOVERNMENT IS PROTECTING INSECTS AND UPSETTING FARMERS

German farmers are protesting against their Government's introduction of new laws to protect insects and halt their dramatic decline. The aim of the legislation is to restrict use of pesticides on agricultural land, and ban their use in National Parks and near major bodies of water. The aim is also to phase out the use of the controversial weed-killer, Glyphosate, by the end of 2023 and tighten rules on use of fertiliser. Further protective measures include cutting night-time light pollution, and designating more land as protected zones. A large-scale study in Germany, in 2017, was one of the first to raise global alarm about the decline in insect numbers. It found that, measured by weight, flying insects across German Nature Reserves had declined by 75% in 27 years.

Feb 2021 Info from

<https://www.france24.com/en/live-news/20210210-german-farmers-rail-against-insect-protection-plans>

A DIFFERENT MOTH TRAP?

By Archie Braddock

In 1979 a large hairy caterpillar came walking down my drive, and I was intrigued. I drove into town and purchased a basic moth book and managed to identify it as a Buff Tip. Learning that it was about to pupate I put it in a jam jar full of soil and eventually the moth appeared. I couldn't believe a moth could look so like a broken piece of birch and within a year I had purchased a 125 watt mercury vapour light. I was now an entomologist.

Over the intervening 40 plus years I've done most things Lepidoptera-wise, but I'd always loved the field work i.e setting off for the day with a sling over my shoulder containing a beating tray and a sweep net, a rucksack on my back full of cartons and other bits, and a net in my hand. I'd arrive home with dozens of larvae, sometimes live moths, even eggs of various species. I was already into building a collection, and my wife Shirley had rapidly learned to set moths and butterflies to the very highest standard. The best field worker I ever met, the late Brian Statham, said to me "the difference between a bred specimen that has never flown, and the same species taken at light, is almost unbelievable. To produce a top class collection that is the way to go." I would 100% agree with that; even if your collection is composed of just photographs the same still applies.

Having had the DaNES magazine (and its predecessor) over those forty odd years I can't help noticing the lack of field work articles. Doesn't anyone go sweeping and beating anymore? Or sugaring? I get the impression most lepidopterists sit around a 125 m.v. light and just wait. I did some of that but I always took along two lightweight 6 watt actinic light traps, powered by small scooter batteries. These were placed in out of the way spots, and often gave me something special. I ultimately gave them away when I ceased field trips, and the next time I saw them they had 80 watt m.v. lights mounted on them, connected via a plug board to a generator. The recipient of my gifts had totally missed the point: a low power actinic will attract different moths, some of which you never see to a powerful m.v. light.

Now, an update on one of my pet projects, the Juniper Carpet. I couldn't understand why I'd never caught it at my old address, barely a quarter of a mile away as the moth flies; even after some twenty three years of running a 125 garden trap. I'd already worked out that I perhaps put the trap away too soon, as this moth will fly on the coldest of nights in October and November, nights that I'd always considered a waste of time with a moth trap. I'd also noted that, like a lot of geometers, they are not keen on strong lights, and only started turning up when I introduced a 20 watt Wemlight at my current address. This was fitted into the lantern light attached to my shed (see **Photo 1**)



Photo 1: The lantern contains a 20 watt Wemlight. It's on 365 nights per year.



Photo 2: My shed and garage are excellent moth 'landing areas'

The final part of the jigsaw came in the autumn of 2020, when none of the fourteen Junipers I caught entered my trap (by now I'd introduced another 20 watt Wemlight mounted on a box trap) - all of them were found sitting on the front of my shed, or the brickwork of the adjacent garage (see **Photo 2**). Checking back in my records I found that the majority of the Juniper Carpets, and others such as the Red Green Carpet, preferred to settle on the nearest flat surface. I realised that a normal garden trap situated in the middle of the lawn, sometimes running with condensation, gave them nowhere comfortable to rest. My woodwork and brickwork now supplies them with that.

I think I've possibly done it wrongly with my 125 watt over all those years, by placing it in the middle of my garden. It should have been placed near a suitable vertical surface, like a wall or fence. Now the first order of the day is to walk down to the shed and check the front plus the garage brickwork, where a large proportion of my catches will be found 'sitting comfortably'. Nor is it just geometers; some of the largest British moths often turn up (see **Photo 3**).



Photo 3: A Privet Hawk sitting low down on the shed door. On the same day I had an Eyed Hawk, plus a Large Elephant Hawk, sitting higher up the door. Of the four Privet Hawks I had during the 2020 season, three of them were found on my shed.

PS I finished this article and emailed it on February 14. On the morning of February 15, I found a Grey Shoulder-knot sat on my garage wall, a moth that's eluded me for more than forty years. The middle of a bad winter, and not a moth trap in sight. What next I wonder?

JULIE'S BLOG FROM HOLBROOK

By Julie Marshall



Information source :
World Wide Fund for
Nature (WWF)
www.wwf.org.uk

LOOK AWAY NOW ...

- The UK is one of the most nature depleted countries in the world, more than one in seven native species face extinction and more than half are in decline.
- 30% of UK birds are threatened with extinction, partly due to insect numbers decreasing.
- The biggest impact on UK wildlife over the last 50 years has been the intensification of agriculture. Damage includes the reduction in microorganisms and insects affected by chemical intervention and farming practices.
- Farmland covers 70% of the UK. A third of agricultural land is used to grow crops, many of which are fed to animals, providing less and less habitat for insects and wildlife.
- The River Tame in Greater Manchester recently recorded the highest level of microplastics anywhere in the world and, combined with toxic algae in river systems due to rising global temperatures, many water-birds (and aquatic insect chains that feed water-birds) are dying as a result of pollution.

WHAT CAN DaNES DO?

Wring our hands in quiet despair while we review our empty nets and moth traps, hoping that it will get better as we tiptoe away from the responsibility?

OR ...

Unite with as many nature/wildlife clubs as possible across the UK to present our strident voice to the government, articles to the national press, internet and a qualified report of our findings to support change?

I am happy to co-ordinate this important community-wide active step IF I have help to gather the correct information and assistance with planning. A quiet life by doing nothing or a responsible one - the choice is yours...

SALES, SWAPS & FREEBIES

If you have any entomological equipment or natural history books to sell, swap, or offer as a freebie, please email details to the editor to advertise in this space. Editor's email is on back page.

A BORING QUESTION

By Glynis Harris

I have just been looking through my photos from last summer, and found these, showing a 6mm wide hole bored in the trunk of a buddleia in my garden. It was the sawdust on the leaves underneath that I spotted first, and it seemed to be an isolated hole; I didn't see any others. I have not yet discovered what produced the hole, and am wondering if anyone could tell me what it is likely to be. Please can you drop me an email if you know. glynisharris@hotmail.co.uk
Many thanks.



**Surviving cold winter, for long did they lie,
In darkness and mould 'neath a snow laden sky,
Like flakes of fresh sulphur, now fluttering high,
As petals unfold, as springtime draws nigh.**

**Bright wings in the sunshine, promoting their cry,
From crusted old post and the coppice they fly,
Patrolling the hedgerow, old woodland nearby,
Is where they'll disport, their trademark to ply.**

**Fresh green is to yellow, as females flit by,
This season's new look they're so keen to apply.
Reposing in jonquil, each male must now vie,
To impress a mate, for larval supply.**



Female Brimstones on knapweed in Bunny Wood Male

What's yellow and can be seen in the spring? Not daffodils in this case, but Brimstone butterflies.

The Brimstone (*Gonepteryx rhamni*) is one of our earliest butterflies to fly in spring as, like the Peacock and Red Admiral, it overwinters as an adult. Unlike these species it shows obvious sexual dimorphism – males are bright yellow, females pale greenish yellow. There is a theory that the term “butterfly” originates from this obvious spring species <https://butterfly-conservation.org/butterflies/brimstone> although it could be an inversion of “flutter-by”.

Adults start emerging to breed in March, although they are seen earlier if mild weather brings them out of hibernation too soon. They mate and lay eggs on buckthorn (*Rhamnus catharticus*). The larvae, found in June and July, are green and well camouflaged. On emerging from the pupae, the adults fly, feed, and then hibernate (known as aestivation) before flying again in autumn, then overwintering. Adult Brimstones are one of Britain's longest-lived butterflies.

Unlike many of our butterflies, whose populations are being reduced by changes in land use and food supply, the Brimstone is currently extending its range, so is listed as “low priority” by Butterfly Conservation. It stands out because few other species fly so early, and males are very noticeable.

The setting for the poem is Bunny Old Wood, ancient ash/wych elm woodland by the A60 Nottingham-Loughborough road. A Notts Wildlife Trust reserve, it has been managed since 1985 to control Dutch elm disease and maximise biodiversity. I am currently the Reserve Warden. Butterflies are one of our target groups, mainly because we have populations of White-letter Hairstreak, whose larvae are dependent on elm, but many other species have benefitted. We currently have 25 species recorded, 11 from our Butterfly Glade, a 0.25 ha patch of land to the north of the wood.

The Butterfly Glade is bordered by gypsum spoil from mine workings below. This spoil produces highly fertile, calcium-rich soil colonised by widely varied plants such as nectar-rich common or black knapweed (*Centaurea nigra*), vetches (*Vicia* spp) and cranesbill (*Geranium* spp). The site is bordered by hawthorn and blackthorn hedges, which need regular management to prevent these invading. There is also scattered buckthorn, the Brimstone's larval foodplant.

Returning to the original observation, apart from the Brimstone, four other butterfly species overwinter as adults - Comma, Peacock, Red Admiral and Small Tortoiseshell. But why do they do this? <https://www.nationaltrust.org.uk/features/how-to-spot-hibernating-butterflies-this-winter>

Technically butterflies don't hibernate. Due to low temperatures and lack of food they become dormant. The advantage of overwintering as adults is early spring emergence and breeding, followed by larval feeding with less competition from later emerging species. It also means they can breed more than once. This happens in Commas, where in warm years the caterpillars grow more quickly, develop into reproductive adults and breed again. In cooler springs, most caterpillars develop into hibernating adults, species survival improved by not breeding when the chances of success are reduced. <https://butterfly-conservation.org/news-and-blog/look-out-for-comma-butterflies>



Edge of Butterfly Glade in summer Clearing the Butterfly Glade in winter

There is a price to pay for adult overwintering. As winter temperatures increase due to climate change, butterflies can become active, use up their reserves and be unable to replenish, since plants are not yet in flower. Another threat to add to the problems faced by this group.

DaNES PHOTOGRAPHIC LIBRARY

By Andy Large (Photographic Librarian)

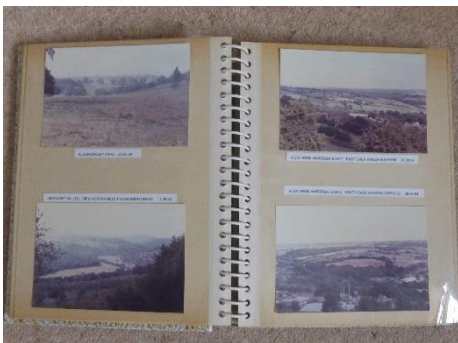
Some years ago, I took on the role of Photographic Librarian for the society, not knowing exactly what this would entail when I gathered all of the existing material together. The majority of the library consisted of 35mm slides, which was a popular medium at the time. How things have changed!!

I have since created a Microsoft Access database of all the slides, numbering them and recording what they are, who took the photograph and the year. Overall we have 967 slides dating from 1972 to 2004. They cover a wide variety of subjects with the most numerous, unsurprisingly, being Lepidoptera. However, there are also images of habitats, Odonata, Hymenoptera, Coleoptera, Orthoptera, Ephemoptera, Diptera, Hemiptera, exhibitions and Arachnida. These are stored, numerically, in ring binders specially designed for 35mm slides.

In addition, we have 3 albums of photographs, some in black and white and some in colour. These contain 42 pictures of field trips and newspaper cuttings between 1968 and 1995; 76 pictures of habitats and 32 colour photos of butterflies.

As we have moved into a more modern era, I have been given 4 CDs with digital images of the DaNES "What Bugs You" event and the Insect Shows of 2004 and 2005. Also 2 CDs of moths trapped by P Hatherley at Coddington, and there is 1 CD of Minibeasts.

The original intention of the library was that anyone giving talks or making publications, could borrow items for such purposes. However, I have had very few such requests, probably because people engaging in such activities already had their own copies. This is almost certainly true in this digital age. I did intend to "digitise" all of our slide images and had some equipment to do so. However, the process was very slow and the results were not that sparkling, possibly due to me or the quality of some of the early slides. As requests for slides was non-existent, I decided not to continue unless specifically asked to do so. A few years ago, I was pleased when approached by the Rosliston Forestry Centre (part of the National Forest organisation) about the use of our material for a booklet on minibeasts which they were producing. Eventually, they used 14 slides and returned them with a CD of the digital images (as listed above).



You may also have seen some pictures of our past exhibitions in previous newsletters. Glynis (editor) has been instrumental in getting them from me and it is gratifying to see the resource being utilised.

Very recently, I have received an e-mail from John Culpin, graciously offering the library a collection of 400 of his slides of moths. These I gladly accepted and look forward to being able to take them from him.

Please remember that the photographic library is a resource for DaNES members to use as necessary. You can contact me by e-mail - andylarge@talktalk.net



Photo from our 1st exhibition, at Clay Cross

Photo from 'What Bugs You' event, Shipley Pk



DaNES 'CORPORATE IMAGE'



DaNES can be recognised by its 'corporate image' and here's how it looks in action - colour, lettering style and angled moth, are based on our journal cover, designed by former DaNES member Steve Whiteley.

BUTTERFLIES, SCIENCE AND JET PROPULSION

By Andy Large

Like many people, because of Covid restrictions, I have spent more time than normal looking at the internet, much to my frustration. Why do I spend so much time depressing myself with gloomy news or reading facile articles about celebrities?

And then, on Wednesday 20.01.21, I came across an article on the BBC website (Science and Environment) about the flight of butterflies and the "wing clap". Apparently, scientists have long been puzzled by how butterflies fly, using large but inefficient wings. How do the larger, slow butterflies avoid predation?

A new study has shown that butterflies have evolved an effective cupping and clapping of their wings to generate thrust and avoid predators. As the wings, in relation to the body size are large, they are aerodynamically inefficient. In the 1970s, researchers theorised that the large wings, when clapped together on the upstroke, could power their take-off. Now, Swedish scientists, using a wind tunnel and very high speed photography, have captured the butterfly's unique flying style: The leading and trailing edges of the wings meet before the central part thus forming a pocket shape. This shape improves the efficiency of the wing clap as it forms an air pocket between the wings. When the wings collapse, this makes the jet of air even stronger and more efficient.

Reproducing this by means of 2 pairs of mechanical clappers, one pair rigid and the other flexible, the scientists proved that the force created by the clap was improved by 28%. It appears that the findings may now be used to improve the propulsion of drones and underwater vehicles.

Very occasionally, on a dull, rainy, boring lockdown day, there is something of real interest to cheer us up and break the monotony. Thank you BBC for these snippets.

'NIGHTWATCH' AT ROSLISTON FORESTRY CENTRE 30TH JULY 2021 ... VIRTUAL, ACTUAL OR A COMBINATION!

By Kate Allies

Our joint event with other local wildlife groups and the Environmental Education Project (EEP) team at Rosliston Forestry Centre will go ahead this year, one way or another. If you prefer reality to email / virtual activity then keep your fingers crossed we are allowed out in groups by July because that will always be our preference too.

The 2020 event included:

- Moth and Night Sky talks on Teams (DaNES and Rosliston Astronomy Group)
- Successful "Go Live" activities with falconry, moths, and (attempted to see) bats, glow worms, and the comet / International Space Station (Richard, Will, Kate, Ruth, Neil)
- We managed Go Live with people working together who were in different locations (Kate & Neil)
- On-the-night posting of information into the 'virtual' event page on Facebook and answering questions (all of the wildlife groups were involved)
- Pre-event short video clips explaining what we would be doing, eg looking at a moth trap

Here's the link to view the 2020 event! <https://www.facebook.com/events/709712249812937/>
(click on the "discussion" tab)

The main glitches we had were signal issues, trouble finding the co-host invitations, too cloudy to see the stars, too rainy. Despite glitches it went really well and I think this year we could share a bit more on social media, with more confidence. We also know how to deal with some of the glitches!

'Comedy moment' for 2020 was Kate trying to identify moths from her garden moth trap in the pouring rain, hounded by hungry frogs, live on Facebook - - with Neil Ward providing ID from his cosy house using Facebook chat to keep up with the live feed. **(Neil: Kate I genuinely did feel sorry for you when it started raining!)**

Despite the rain some interesting moths were caught, including Spectacle moth, Lesser Broad-bordered Yellow Underwing, Clouded Border, Single-dot Wave plus a very bedraggled Green-veined White butterfly. The frogs were hopping hopefully around the moth trap too...

To join in the 2021 event, look out for the programme nearer the time on the DaNES and the EEP Facebook pages as, whatever the format, we will advertise it on social media:

<https://www.facebook.com/DaNESinsects> or <https://www.facebook.com/EnvironmentalEducationProject>

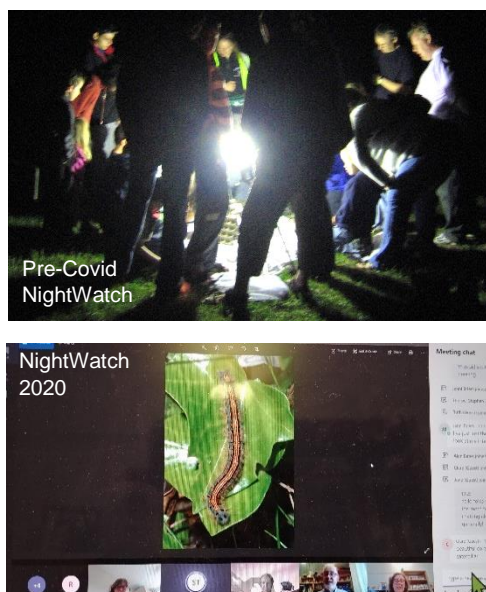
If you don't use Facebook then email the EEP team at rosliston@southderbyshire.gov.uk for the programme around the middle of July.

Hopefully we will all be out in the field together by the end of July. If the real event is still an issue because of Covid, we are likely to have something similar to last year and we'll include ideas and video clips in the build-up, like how to set up a moth trap in daylight!

Moth trap ready for action



ROSLISTON 'NIGHTWATCH' EVENT



Elephant Hawkmoth





MY FIRST INSECT SIGHTING 2021 By Glynis Harris

After more than 6 weeks of intermittent snow, and temperatures well below zero, the weather turned suddenly mild and spring-like on February 14th. The very next day I found this solitary Rosemary Beetle at the top of my rosemary bush in Beeston Rylands in Nottingham. It was reluctant to move, but was definitely alive, and I wondered if it had been in this exposed position throughout the severe weather.

Graham Maynard, in his article about these beetles in the last newsletter, said this species is originally from the Mediterranean, and may be moving northwards as the climate gets warmer. The long spell of arctic temperatures at the start of this year must, therefore, have been seriously testing.

MARTIN WHITE

By Roy Frost

Martin White, a member of DaNES [DES at that time] during the 1980s, died in October 2020 at the age of 61.

He will be long remembered for his connections with local Lepidoptera and in particular for breeding butterflies at his Worksop home before subsequently releasing them at various locations, mainly in Derbyshire, Nottinghamshire and South Yorkshire but also east to the Bardney Forest area of Lincolnshire. Some of this activity was outside the law and was thus carried out surreptitiously as he travelled around close to home by bicycle; for longer excursions he took the train.

It is fair to say that he devoted his life to these activities and he made a living from selling livestock to butterfly enthusiasts, including landowners and conservation-minded farmers. My first notion of 'something strange happening' was in 1985 when I received records of Marbled Whites from Anston Stones Wood, followed by Wood Whites at Whitwell Wood in the 1990s. Thirty five years on, the Marbled Whites persist and are found at many other sites but the Wood Whites, as in so many of these experiments, were short-lived. He claimed to have made some 2500 releases, involving 40 species. In 2007 he told me in a letter that 'My knowledge and detailed accounts on this particular subject are now unsurpassed'. This was probably correct. It also showed that he was not exactly publicity shy and he clearly enjoyed his major role in a BBC television program called Butterflies: a very British obsession.

The problems associated with such liberations have been widely discussed and need not be aired again here. However, even those most strongly opposed would not doubt Martin's commitment and his knowledge of entomology and botany. What a pity it was that he fell out with some of our most highly-respected entomologists. The thought will always remain that his recalcitrance and consequent unwillingness to share his considerable expertise with relevant organisations was very unfortunate.

Notwithstanding all of this, he was an inspiration to many and was by no means the only 'introductionist' operating locally. Several other people in our region have been involved in releases and this seems likely to continue. It is to be hoped that those concerned will at least record their actions with the county butterfly recorders and landowners. Apparently a full list of Martin's releases exists, but it is certainly not widely available. In his final few years he actually changed tack and documented in detail his plans to establish Mazarine Blues locally [though success is looking unlikely at the moment]. I must confess to enjoying seeing these myself; likewise Small Blues and Brown Hairstreaks recently released by others locally.

Just a day after Martin's death The Guardian featured a lengthy article by Patrick Barkham which, while outlining some of the arguments against butterfly liberations, came across as strongly in favour. It featured interviews with Martin and showed two large photos of him about to release Mazarine Blues. Very soon after that, Sue Everett, writing in the journal British Wildlife, obviously had different opinions about those who released without reference to official channels, heading her article 'Rogue rewilders'.

These two contrasting articles sum up Martin and his effect on people; he remained controversial to the end.

I am grateful to Mike Archer, Ken Orpe and Christine Parsons for their comments.

A BLAST FROM THE PAST

Extract from our Minute Book

Supplied by Darren Clarke (DaNES Historian)

FIELD MEETING 8 - AT DOVEDALE - JUNE 8th 1968

Present; G.Wright, W.Bilbie, F.I.Chapman, J.Bradley, M.Bradley, S.Mason, J.Hopkinson, J.H.Johnson, and from the Matlock Field Club, J.F.Kent and B.Statham.

The first car reached Dovedale at 10.45am. The rest arrived at 11.0 am. The sun was shining warmly but there was a cold south easterly wind that kept the temperature down, except in sheltered spots.

The hawthorn was just coming into blossom and the grass had grown so tall that very few flowers were noticeable. A few germander speedwell, meadow saxifrage, forget-me-not, red campion and thyme flowers were seen. Hardly any rock rose blooms were to be found at all.

A good number of Speckled Yellows, Small Heath butterflies, Orange Tip butterflies and Mother Shiptons were seen and caught, although the breeze made it difficult to catch anything in flight.

*A few micros were taken, a crambid (*C. pratellus*) and *P. aurata* (General Purple and Gold). A web of very tiny caterpillars were found feeding on hawthorn, probably *padellus* and a black and white spotted micro larva was found on thistle.*

Only one mayfly was seen in flight near the river, the large common variety. One perfect example of the fly which resembles the Bumble Bee was seen on a hawthorn bush.

By 4.0 pm the place was becoming extremely busy, and the road was completely full of cars all the way to the main road.

The general feeling was that we were just a little bit too early; another few days would have seen the Wood Tigers and the Cistus Foresters.



Orange Tip (© Iain Leach)

Speckled Yellow (© Iain Leach)



W Bilbie



JH Johnson



G Wright



Small Purple & Gold (© Butt.Cons)

Small Heath (© Iain Leach)



Three of the men who were at the field meeting (photographed in the same year, 1968) and some recent pictures of what they saw on that day at Dovedale.

**SHARE YOUR NEWS AND VIEWS
IN OUR NEXT NEWSLETTER**

Just a few lines or a photo, or a longer article if you like.

Email to glynisharris@hotmail.co.uk

Please send text as a Word document
and photos as email attachments (no zip files)
(Articles preferably 1 page max)

RECORD & REPORT YOUR INSECT SIGHTINGS

Please record any insects you see
and report what / where / when / who to Dave Budworth, our Records Co-ordinator.
He will add the info to our main database then pass it to our individual recorders.

EVERY RECORD IS OF VALUE FOR RESEARCH & CONSERVATION!

Report your records to Dave by phone on 01283 215188
or by email to dbud01@aol.com or records@danes-insects.org.uk

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