

Wider Countryside Butterfly Survey

Annual Newsletter 2021 Season

Compiled by the WCBS team – Megan Lowe, Ian Middlebrook (BC), Sarah Harris (BTO), David Roy (UKCEH) and Anna Robinson (JNCC).



Green-veined White
by Martin Warren

Welcome to the WCBS

The Wider Countryside Butterfly Survey (WCBS) forms part of the UK Butterfly Monitoring Scheme (UKBMS) which generates high quality data on the population status of butterflies. The WCBS comprises a network of randomly selected 1km squares sampled at least twice a year. Recorders count butterflies using conventional transect criteria along two 1km long survey lines, which run parallel within the square. This newsletter presents initial results from WCBS squares in 2021, based on changes in species occurrence. The full population trend results, from all component surveys of the UKBMS, was published as Official Statistics in March and is available via [the UKBMS website](#). The WCBS is jointly run by Butterfly Conservation (BC), the UK Centre for Ecology & Hydrology (UKCEH), the British Trust for Ornithology (BTO) and the Joint Nature Conservation Committee (JNCC).

Coverage in 2021

After experiencing a slight dip in 2020, we had a welcome increase in coverage in 2021 with 787* squares surveyed; this is an increase of 9.8% (70 squares) on 2020 levels and is the 6th best year in terms of coverage across all years of the Scheme. Survey effort by Butterfly Conservation (BC) and BTO/JNCC/RSPB Breeding Bird Survey (BBS) recorders increased by 37 and 33 squares respectively, resulting in a total of 503 BC squares and 284 BBS squares surveyed.

At the country level 687 squares were surveyed in England (+47 compared to 2020), 50 in Scotland (+3), 33 in Wales (+15), 16 in Northern Ireland (+5) and one on the Isle of Man (same as 2020).

*records submitted to the Scheme before 13th December 2021.

Regional Coverage

The three BC branch areas with the greatest number of squares covered during 2021 were Dorset with 75 (66 BC and 9 BBS), Gloucestershire 54 (44 BC and 10 BBS), and Hampshire and Isle of Wight 48 (35 BC and 13 BBS). These areas continue to be popular with BC volunteers, while survey coverage by BBS volunteers remains greatest in Sussex for the 4th year in a row (26 BBS in 2021). The BC branch area that saw the greatest increase in coverage compared to 2020 was South Wales (+13 squares). It is fantastic to see the coverage in this area bounce back after a series low in 2020 when the Covid-19 restrictions took their toll. Whilst we recognise and sympathise that some recorders were still impacted by the ongoing pandemic, we are encouraged to see that 75% of all branch areas either increased or maintained the same levels of coverage as 2020, with 44% of areas achieving the same or better coverage than in 2019.

Three branch areas had their best ever year in terms of coverage of WCBS squares during 2021. These were Dorset, Gloucestershire, and Hertfordshire and Middlesex. East Scotland saw a welcome increase in BBS coverage and Lancashire its best year in the series for BC squares covered. In contrast, Devon, Glasgow and South West Scotland, and Lincolnshire suffered their poorest years in the series. There are now several areas where it would be really beneficial to boost coverage and restore participation. More details about these areas can be found on page 4, Priorities for improving coverage in 2022.

Meadow Brown by Will Langdon



2021 SURVEY

Overview of Survey Results 2021

In total 1,807 WCBS surveys were carried out in 2021. Approximately 600 recorders counted 98,405 butterflies of 48 species, the same number of species as in 2020. The species count comprised of 20 habitat specialists, 25 wider countryside species, and the three regular migratory species: Clouded Yellow, Painted Lady, and Red Admiral. All species recorded were the same as in 2020.

There were 306 spring visits to 198 squares (149 BC and 49 BBS) with Orange-tip recorded in 83 squares and Green Hairstreak in 3. An additional 50 late summer visits were made to 47 squares in September.

The overall busiest day for recording was Tuesday 24th August when 92 visits were made, recording 3,000 butterflies of 31 species. The most visits made to a BBS square was 14 in a square near Great Shelford, Cambridgeshire. The most visits to a BC square was 11 in a square near



Udea lutealis by Patrick Clement

Cleator Moor, Cumbria and a square at Fontburn Reservoir, North East England. Throughout the core July and August recording period 619 squares (79% of the total; +1 percentage point compared to 2020) received the required two visits. 78,030 butterflies of 44 species were recorded during these 1,238 visits (the same number of species as 2020). As in 2020 an average of 63 butterflies were recorded per visit.

Eighteen wider countryside species (same as 2020) achieved target 'good' coverage (detected in 100 or more squares), whilst a further three species had 'adequate' coverage (found in 30 – 99 squares).

Of the 25 wider countryside species, 44% were more widespread than in 2020 (Table 1). Meadow Brown continued to maintain the top spot as the most widespread butterfly in 2021, occupying

92% of WCBS squares during the core July and August recording period. Small Tortoiseshell saw one of the largest increases in occupancy (+10 percentage points) in comparison to 2020, only beaten by the Painted Lady (+13) which experienced a dip in 2020 likely due to its pattern in migration. Marbled White achieved its best year in the series in terms of occupancy. From its core area in southern Britain, this species has expanded its range northwards and eastwards over the last twenty years.

Following a peak in 2020 the Holly Blue saw the largest decrease in occupancy in 2021 (-16 percentage points). Peacock (-13) and Comma (-10) also experienced decreases as did three of the widespread white species; Small White (-4), Large White (-7) and Green-veined White (-6). The latter suffering its poorest year in the series in terms of occupancy.

Of the 16 habitat specialist species recorded in the WCBS during July and August Dark Green Fritillary (+3 percentage points) and White Admiral (+2) saw the largest increases in occupancy compared to 2020, both recording their best year in the series. Silver-washed Fritillary remained the most widespread of the habitat specialists, being detected in 12% of squares.

Country Level Results

Looking at national patterns, Meadow Brown was the most widespread butterfly in both England and Wales occupying 94% and 96% of squares respectively. It was also one of few butterflies to report an annual increase in occupancy across all four countries. Ringlet maintained the top spot in Scotland for the second year in a row being counted in 78% of squares (+4 percentage points compared to 2020), while in Northern Ireland the most widespread butterfly was the Green-veined White (93% of squares).

Peacock saw the largest decrease of any species at the country-level being seen in just 20% of squares in Wales (-36 percentage points compared to 2020). Declines in occupancy for this species were also recorded in England and Northern Ireland, with only a very slight increase (+2.4 percentage points) in Scotland when compared to 2020.

In contrast one of the species that saw the biggest increase in occupancy at the country-level was the Common Blue, also in Wales. It was seen in 44% of squares surveyed (+22 percentage points). The Common Blue was also recorded in the



Small Tortoiseshell by Christopher Mills

WCBS in Northern Ireland for the first time since 2015.

Top Counts

The largest butterfly count in 2021 was 401 Meadow Brown on 14th July in a square near Horton, Dorset. In Scotland, the top butterfly count was 178 Ringlet on 15th July near Kirkmichael, Perth and Kinross. In Northern Ireland it was 116 Green-veined White on 3rd August near Douglas Road, County Antrim; and in Wales it was 108 Meadow Brown near Llanfynydd, Flintshire on 17th July.

Habitat Specialists

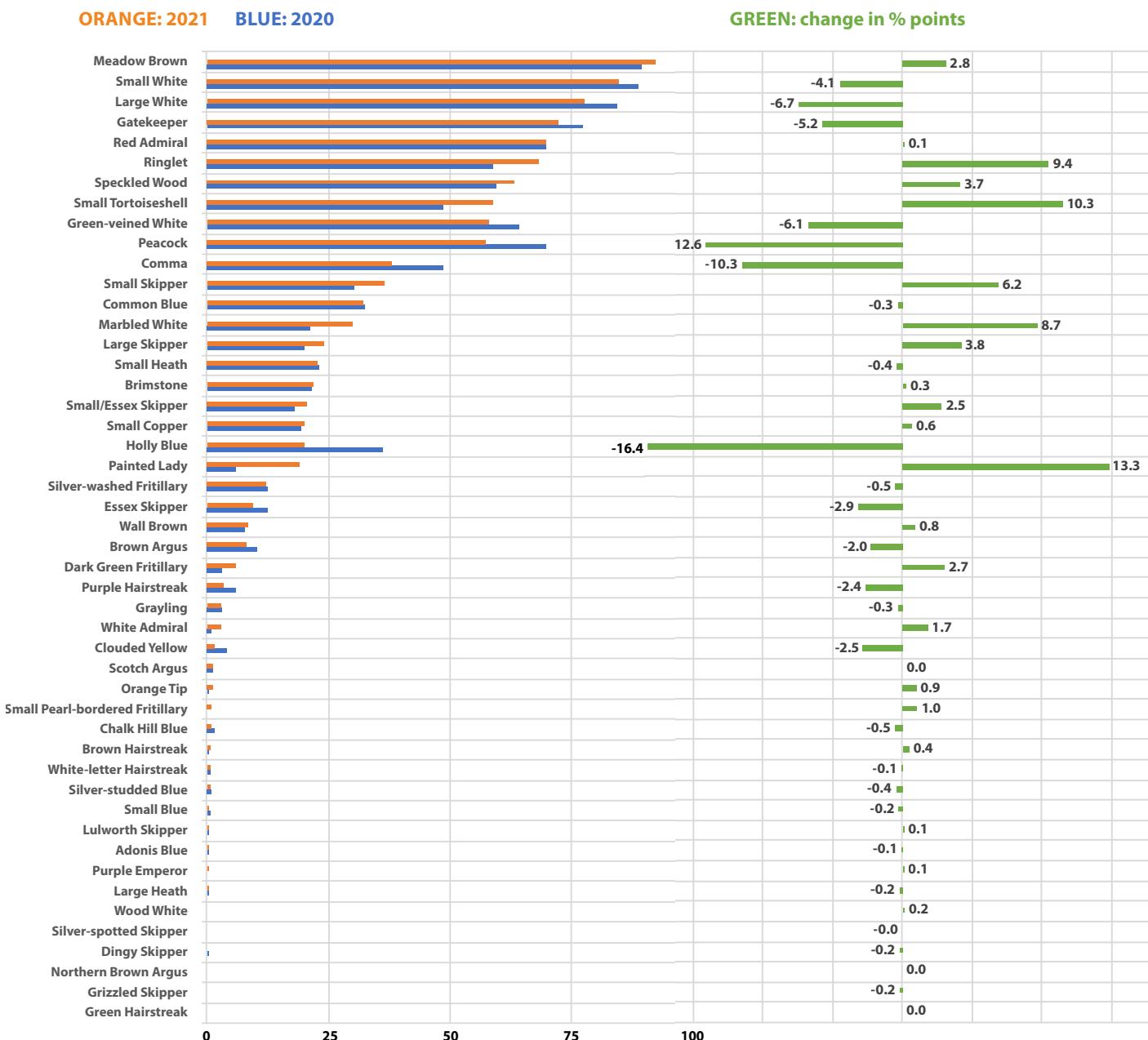
The maximum habitat specialist count was 296 Chalk Hill Blue on 4th August in a square on Portland, Dorset. Other notable counts included 72 Grayling on 24th August in Hart, Hampshire; 61 Silver-studded Blue on 16th July near Boldre, Hampshire; and 49 Dark Green Fritillary in Wealden, Sussex on 13th July.

Pioneering Visits

75 squares received their first ever survey as part of the WCBS in 2021. Of these, 12 (1 BC, 11 BBS) had no previous butterfly records (as per Butterfly Conservation's Butterflies for the New Millennium dataset). These 12 pioneering visits generated records for 24 species including Small Pearl-bordered Fritillary, Dark Green Fritillary, and Purple Hairstreak.

Zero Heroes

39 visits to 32 squares resulted in no butterfly sightings. A further 49 visits to 44 squares resulted in just one butterfly species being recorded. The majority of these were in the spring months when you would expect fewer butterflies to be on the wing, but nevertheless if carried out during the right conditions, zero or low counts are just as valuable as higher ones. They enable us to identify patterns and explore why butterflies may not be doing so well in certain areas or habitats, which in turn helps inform policy and/or conservation. We are extremely grateful to all recorders who continue to persist with their surveys despite low numbers of butterflies being seen.

Table 1: WCBS Annual Results; butterfly occurrence in WCBS squares in 2021 in comparison to 2020 (using data from squares sampled twice between July and August).

Moths

Day-flying moths were recorded in 169 squares (99 BC and 70 BBS), which equates to 21% of all squares surveyed (+3 percentage points compared to 2020). In total 1,163 moths of 77 species were recorded (19 more species than in 2020). The micro moth, *Udea lutealis*, was the most numerous moth, accounting for 20% of all moths seen. However, the Silver Y was the most widespread moth being recorded in 38% of these squares (-5 percentage points compared to 2020). Cinnabar was the second most widespread moth, being seen in 18% of squares that reported moths. Other moth species that were commonly encountered include Six-spot Burnet, Yellow Shell, Common Carpet, and Magpie Moth.

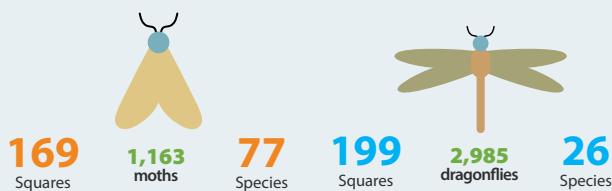
Dragonflies

Dragonflies were recorded in 199 squares (87 BC and 112 BBS), which equates to 25% of all squares surveyed (same as 2020). A total of 2,985 dragonflies of 26 species (two less than in 2020) were counted. Common Blue Damselfly was the most numerous of the Odonata species, accounting for 23% of all dragonflies seen. Common Darter continued to hold the

top spot for most widespread dragonfly for the sixth year in a row, being seen in 41% of squares that recorded dragonflies (+3 percentage points compared to 2020). In second place, in terms of occupancy, was the Southern Hawker which were recorded in 31% of these squares (-3 percentage points). See page 7 to read more about how dragonfly records generated through the WCBS are making a difference.

Other Species

Other wildlife recorded through the WCBS surveys in 2021 included 43 bird species, 9 mammals, 17 species of hoverfly, 10 beetle species, 2 reptiles, and 23 other insect or arachnid species. These data go into the iRecord database for verification and are made available to the relevant national recording schemes.



2022 GOALS

Priorities for improving coverage 2022

Of the 31 BC branch areas, 8 areas achieved good coverage (more than 30 squares sampled) of WCBS squares in 2021. These were: Bedfordshire and Northants, Dorset, Gloucestershire, Hampshire and Isle of Wight, Norfolk, Suffolk, Surrey and SW London, and Sussex.

A key aim for the 2022 survey season will be to increase coverage, particularly in areas that have been identified as 'high priority'. Figure 1 displays the level of WCBS coverage per BC Branch area in 2021. Areas with higher coverage (number of squares surveyed) are shaded in a darker green.

The BC branch areas most in need of surveyors (the lightest areas shown on Figure 1) are: Cheshire and The Wirral, Cornwall, Devon, Glasgow and SW Scotland, Highland, Lincolnshire, North East England, North Wales, Northern Ireland, and Warwickshire. These areas are all classed as 'high priority' due to consistently low or declining coverage.

Squares with long data runs

Squares with continuous sets of data are really valuable to the Scheme enabling us to better understand what is happening to butterflies across the countryside. The WCBS scheme entered its 13th year in 2021. Since 2009 over 2,000 WCBS squares have been surveyed, with 389 of those squares being surveyed for 10 or more years. There are, however, a number of these squares that are now looking for new recorders to continue adding to their long data run.

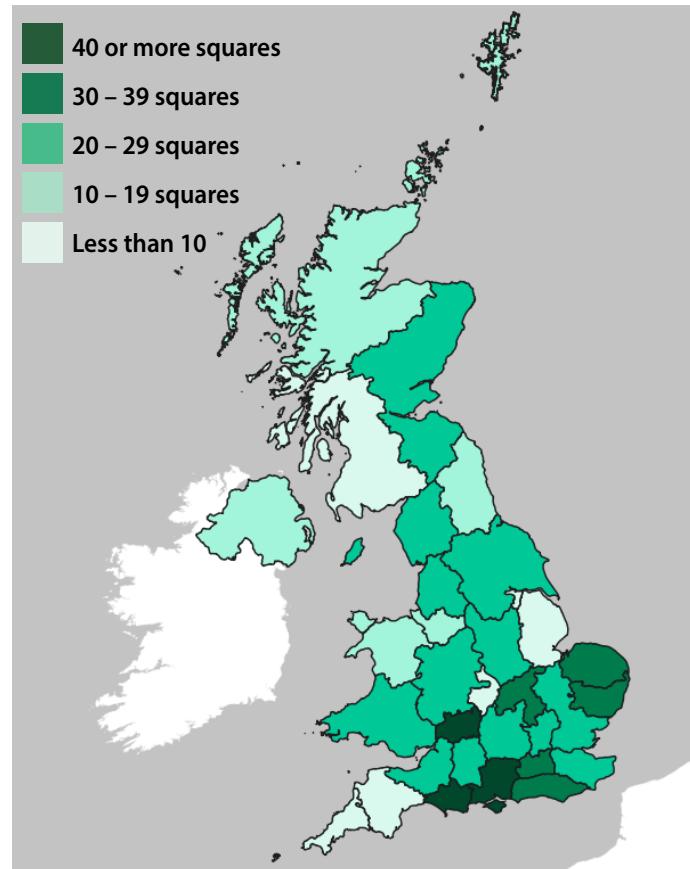
There are 19 BBS squares that have data runs of more than 10 years which aren't currently being monitored. These are in Cambridgeshire and Essex, Cheshire and The Wirral, East Midlands, Hampshire and Isle of Wight, Kent, Lincolnshire, Surrey and SW London, Upper Thames, Wiltshire, and Yorkshire. If you are interested in re-activating any of these squares please contact Sarah Harris (see 'Getting Involved' page 9).

There are also 17 BC squares that have data runs of more than 10 years that have not received visits since 2019. They occur in Bedfordshire and Northants, Cambridgeshire and Essex, Cheshire and The Wirral, Cornwall, East Scotland, Herts and Middlesex, Norfolk, Northern Ireland, Somerset and Bristol, Suffolk, Surrey and SW London, Sussex, Upper Thames, and Yorkshire. If you are interested in finding out more about these squares please contact the relevant WCBS Champion (see 'Meet the Team' page 11) or contact BC's WCBS Co-ordinator (see 'Getting Involved').



Scotch Argus by Tim Melling

Figure 1: WCBS Coverage (BC and BBS) in BC Branch areas in 2021



Map data from OpenStreetMap: openstreetmap.org/copyright

Table 2: an example of BC squares with long datasets requiring re-establishment:

Square	Branch	Location	No. years surveyed
TL0547	Bedfordshire and Northants	Elstow, Bedford	11
TL4610	Cambridgeshire and Essex	Harlow, Essex	11
SX0871	Cornwall	Holland nr Bodmin Moor, Cornwall	11
NO1737	East Scotland	Perth and Kinross	11
TQ1492	Herts and Middlesex	Hatch End, Greater London	11
TM1599	Norfolk	Wreningham, Norfolk	11
ST0140	Somerset and Bristol	Withycombe, Somerset	12
TL9047	Suffolk	Near Lavenham, Suffolk	11
TQ1608	Sussex	Sompting, West Sussex	11
SP2818	Upper Thames	Shipton-under-Wychwood, Oxfordshire	11

HOLIDAY SQUARES

Holiday squares

Planning a holiday to Scotland, Wales, Yorkshire, or the North of England this summer?!

Although popular holiday destinations, these regions struggle with WCBS coverage due to the remote nature of many of the squares. 'Holiday Squares' aim to increase this coverage by making it easier for potential recorders to sign up to a square in an area of countryside they would like to visit. These squares are a great excuse to explore new areas whilst contributing valuable information.

In 2021, a total of 34 holiday squares were surveyed (6 more than in 2020). Three of these squares had never been surveyed previously as part of the WCBS; these were in North East England, Yorkshire, and South Wales.

How to sign up to a square:

To view and sign up to a holiday square login to your UKBMS account and visit the 'Holiday Squares' webpage. Here you can use the map to zoom in to the area you are visiting, view the squares available, and assign yourself to survey a square(s). Once assigned you will receive an email with more details about the square and any existing route information. Furthermore, holiday squares can be shared by surveyors so if you can only visit once, someone else could cover the second visit.

There are also opportunities to complete one-off surveys on the BBS 'Upland Rovers' squares. These squares can change year to year so to find out more check out the locations on the Upland Rovers map and then contact Sarah Harris (see 'Getting Involved' page 9) to be allocated the square for one season only. Note, the map application is only available to BBS bird surveyors; please contact Sarah directly if you are interested in being involved.

Here is a sample of what is on offer:

NZ8901, Newton House Plantation, North York Moors

Less than 0.5km away from May Beck Car Park, this square includes a variety of footpaths and forestry tracks. Despite the area being popular for both its history and waterfalls, this square has never been surveyed before.

Image: John Bond's Sheep House © Peter Worrell (cc-by-sa/2.0)



SH3589, Mynydd Mechell, Anglesey

A landscape of rocky knolls, bogland, and lakes interspersed by multiple public rights-of-way. Another for a local or holidaying pioneer; this square has never been surveyed before.

Image: Eric Jones (cc-by-sa/2.0)



NS0225, Isle of Arran, Scotland

Last surveyed in 2016, thirteen butterfly species have so far been recorded in this square including Small Pearl-bordered and Dark Green Fritillaries. If waterfalls also appeal to you, the stunning Glenashdale Falls (Eas a' Chrannaig) can be found on the square's boundary.

Image: Glenashdale Falls © Alan Walker (cc-by-sa/2.0)



Small Tortoiseshell by Bob Eade

YOUR WCBS

Completing the Circle by Colin Duncan

As a long-standing volunteer with the Chiltern Rangers I'm regularly involved in managing and restoring many of the diverse habitats within Chilterns AONB. Tasks include controlling chalk grasslands, brushcutting scrub, rotational cutting of blackthorn and hedge planting.

However, as these tasks are timed to cause the least disturbance, there'd always been a gap in my knowing if plants and animals would benefit. I'd been reassured that I was helping rare butterflies such as Adonis Blue, Duke of Burgundy and Brown Hairstreak, but I had no idea how to identify them or to know if they were actually benefitting.

This is why I decided to get involved with the Chiltern Conservation Board's Tracking the Impact Project too.

Through a series of excellent online Zoom presentations and field trips, led by the Butterfly Conservation Upper Thames WCBS Champion Nick Bowles, I gained the knowledge and confidence to recognise the butterflies in the Chilterns; moreover, to learn about their habitats, food sources and lifecycles.

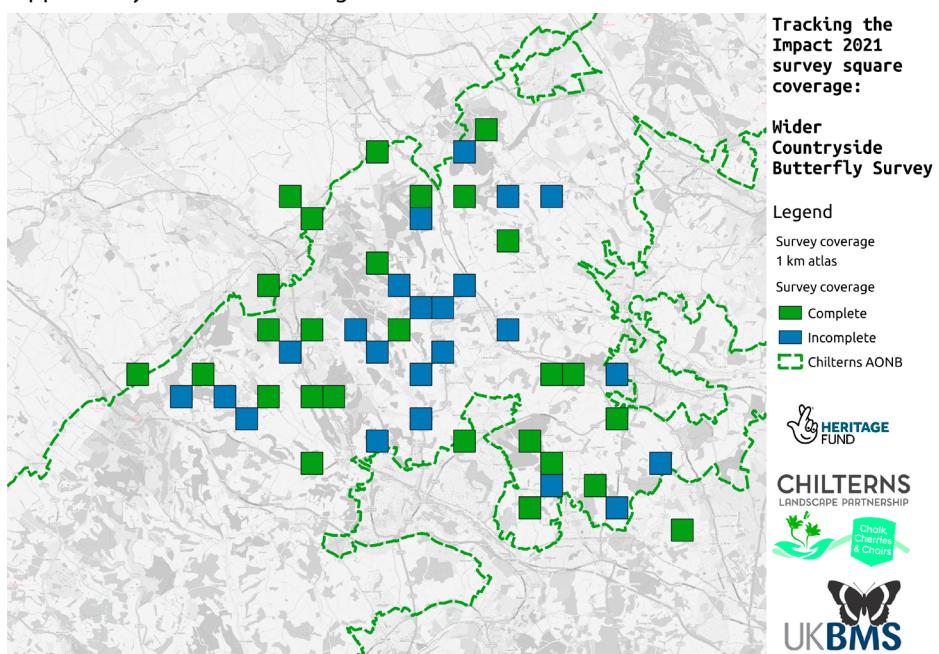
Armed with this new-found confidence, I engaged in survey work, something I had never done previously. Here too, a

series of online Zoom presentations, led by WCBS officer Megan Lowe, talked me through the steps involved from being allocated a 1km² survey area, selecting transects, monitoring the butterflies and, most importantly, recording the data on the UKBMS data base.

I surveyed in 2021 and I plan to continue to survey for many years to come, knowing that the off-season habitat work and the survey work are somewhat coming together to complete the circle, besides being great fun and an opportunity to learn new things.



Chalkhill Blue by Jim Asher



Colin is one of a growing team of volunteers getting involved in the Chilterns Conservation Board's Tracking the Impact project. Funded by the National Lottery Heritage Fund the project aims to monitor the population trends of birds, butterflies and plants in the Buckinghamshire Chilterns.

Of the project's 50 1km squares 27 were surveyed by WCBS volunteers in 2021 (the first year) who recorded 470 records of 30 species between them including chalk grassland specialists such as Dingy Skipper, Grizzled Skipper, Chalk Hill Blue and Adonis Blue.

In addition to the surveys the project also offers a training

programme (run by Nick Bowles, Upper Thames Branch) for volunteers who want to get involved in WCBS or who want to brush up on their species ID skills.

If you live locally to the Chilterns and want to get involved please get in touch with Nick Marriner who oversees the project: nmarriner@chilternsaonb.org

You can also watch back any of last years training on the Chilterns Conservation Board You Tube channel.

We wish Colin well for his survey visits to his square this spring and thank him and the many 1,000s of volunteers doing their bit and making a difference for our butterflies.

YOUR TWEETS

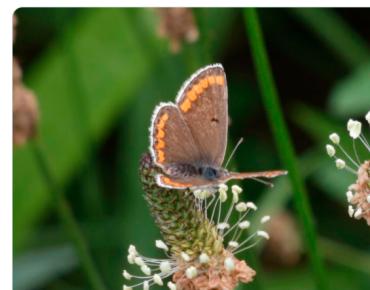


Just uploaded this year's records for @WCBSLive @savebutterflies Finding a suitable weather day in August has been tricky (damp & chilly) but still managed to find 15 species when I did get out. #butterflies



David Walsh
@DavidWalsh22

My August Wider Countryside Butterfly Survey at Brantham produced 48 individuals of 9 species (last year same week 48 of 10!). The highlight was this Brown Argus, my first at the site.



Tweet us @WCBSLive



One of 11 Purple Hairstreak recorded today on our Wider Countryside Butterfly Survey square. @BCWarwickshire @WCBSLive



Damsels and Dragons in the WCBS by Dr Pam Taylor

BDS Trustee, Convenor of the BDS Dragonfly Conservation Group and co-author of *State of Dragonflies in Britain and Ireland 2021*

In September last year the British Dragonfly Society published its [State of Dragonflies in Britain and Ireland 2021](#) report. This assessed the fortunes of our dragonfly and damselfly species over a 50-year period using over 1.4 million records from 17,000 recorders. Of the 56 dragonfly species observed in Britain and Ireland, 43 species had sufficient records for a trend analysis to be meaningful; the remaining dragonfly species are either rare vagrants or resident species with very restricted distributions.

Contributions from the UKBMS, of which the Wider Countryside Butterfly Survey is a part, were used in these assessments. In fact sightings from butterfly recorders made up the second largest dataset outside of our own that was used in the report. The UKBMS supplied over 30,000 records, with only BirdTrack supplying more. These two schemes combined produced almost 6% of all the records used in the analyses. The British Dragonfly Society is extremely grateful for your support and would like to encourage more of you to get involved in dragonfly recording.

The results of our trend analyses, carried out for us by the UK Centre for Ecology & Hydrology, showed that 41% of our resident and regular migrant dragonflies are increasing in occupancy. This sounds like good news, but is a further disturbing sign of climate and habitat changes. Also worrying is the finding that over 10% of our species are in decline due to these same climatic and habitat pressures.

Our next task will be to investigate the detailed reasons behind these changes

in an attempt to identify ways to aid our declining and rare species. We would also like to track the advances of newly colonising species. Since 1995, no fewer than eight new species have reached Britain for the first time and at least two others have reappeared after a long gap in their records. Following the future fortunes of our declining and colonising species is where your help will be most appreciated. Only by knowing and keeping track of current distributions will we be able to measure future change.

If recording dragonflies feels daunting, there is plenty of help available on our website (<https://british-dragonflies.org.uk/>). We have pages full of helpful tips and advice, plus lots of photographs of each possible species. There are also social media sites where you can post photographs and request help with identification. One such is the British Dragonflies and Damselflies Facebook page.

One thing to remember when recording your sightings is that with the changing fortunes discussed here, not everything that is called Common, Scarce or Migrant actually is any more. For example, Common Hawker is far from common in much



Scarce Chaser by Pam Taylor

of lowland England and Southern Hawker can be found as far north as Inverness in Scotland. Common Blue Damselfly is in fact common, but due to its habitat preferences, far less likely than Azure Damselfly to be found on small waterbodies like ponds and ditches. There are other examples of misleading names too. Migrant Hawker is now resident in England and much of Wales, and still spreading northwards, while Scarce Chaser is increasing and expanding westwards from its former stronghold in south-east England.

Please consider adding dragonflies to your regular butterfly counts. All records are valuable regardless of a species' current status, and everything you add will aid the conservation of these precious insects.



Southern Migrant Hawker by Pam Taylor

NEWS

Get FIT Counting this Spring

Spring brings with it not only the chance to enjoy butterfly discoveries, but also a chance to undertake "Flower-Insect Timed Counts" or FIT Counts in your garden or during your WCBS recce visits from 1st April! The FIT Count is a simple 10-minute survey to collect data on pollinator numbers from bees to beetles across the UK, recording all flower visitors to group level on a patch of target flowers. FIT Counts work equally well in rural or urban locations, and can be done in warm, dry weather any time from April to September. All the FIT Count materials and video guides are available on the [PoMS website](#). Counts can be done using a printed recording form and entered online, or via the new [FIT Count app](#) which launched in 2021.

Butterfly Conservation are partners in the UK Pollinator Monitoring Scheme (PoMS) which runs the FIT Count survey and is entering its sixth year. During 2021, more than 3,500 counts were submitted and as the scheme builds momentum, these data are being used to understand the wonderful diversity of insect groups [visiting different flowers](#), and how these vary over space and time. PoMS is also running a more intensive systematic survey of bees, hoverflies and other insects across a network of 1 km squares in England, Wales, Scotland and Northern Ireland. Find out more from behind the scenes in this latest blog "[PoMS down the microscope](#)". They are looking for volunteers to adopt remaining squares. You would receive individual training from a PoMS team mentor and all the equipment needed, in exchange for four survey visits a year. Contact poms@ceh.ac.uk for more information.



Meadow Brown by Sarah Hulmes

UK Butterfly Recorder's Meeting

The annual UK Butterfly Recorders' Meeting was held online for the second time on Saturday 26 March 2022. It included the official announcement of the UKBMS results from 2021 along with a series of fascinating talks and updates from the butterfly community. The meeting was recorded and [can be watched back here](#).

Garden Butterfly Revamp

The Garden Butterfly Survey is a year-round online butterfly survey that has been running for a number of years now.

For 2022, Butterfly Conservation has redesigned the Garden Butterfly Survey with a new system and brand new website.

The changes have introduced some new options for recorders including taking part from shared gardens and allotments, and adding photographs to your sightings. And to improve and harmonise data flow, like many other Butterfly Conservation surveys, the new website now feeds directly into iRecord and Indicia database. This means sightings are directly accessible to County Recorder data verifiers and local environmental records centres. A public relaunch of the website will take place in April, but if you see a garden butterfly or would like to get signed up before then, please visit www.gardenbuttersurvey.org/

This work is part of 'Supporting Science', a project that is improving data flow and digital access to natural heritage. The project received DCMS and National Lottery funding, distributed by The Heritage Fund as part of their Digital Skills for Heritage initiative.



Large Skipper by Neil Hulme

WHAT'S ON

Butterfly Events and Workshops

There are a number of BC events coming up this spring and summer that WCBS recorders may find interesting; many of which are online. Below we detail just a couple of the online events being advertised at time of publication. For more events please check the [Event pages](#) on the BC website.

iRecord Training

BC has developed a new iRecord training course in collaboration with the Field Studies Council (FSC). 'Discovering iRecord: Butterflies and Moths' has tailored FSC's popular iRecord training

approach so that learners will get to know the iRecord platform in the context of butterfly and moth recording. The course will start with the basics of biological recording, data flow and verification. Learners will gain confidence when using the iRecord platform to record and explore moth and butterfly data. This course is delivered as part of the Supporting Science project and thanks to our funders we can make a number of places available free of charge. [Click here to book your place](#).

Butterflies of Scotland ID and Survey Training

A series of online training workshops are being delivered throughout

Spring focusing on the identification and surveying techniques of Scottish butterflies. These events are led by the 'Helping Hands' project and all events are free to attend. [Click here](#) to view upcoming workshop dates and events in Scotland.

Field Trips

Many BC Branches are organising field trips again this year. Field trips range from guided tours in butterfly hotspots to focusing on the identification of tricky species. They're usually a great opportunity to improve identification skills, explore new places, and meet likeminded people. Keep an eye on the [BC Events page](#) to find events near to you.

GETTING INVOLVED

Getting involved in the WCBS

Overall co-ordination of the WCBS is led by Butterfly Conservation's WCBS Officer, with squares allocated to recorders through a network of voluntary local Champions (see 'Meet the Team'). The WCBS Officer, Megan Lowe, can be contacted via survey@butterflyconservation.org. If you would like to take part in the WCBS on your BBS square, please contact Sarah Harris at the BTO via bbs@bto.org.

WCBS Champions

WCBS Branch Champions have a pivotal role in promoting and co-ordinating the scheme in their local areas. Throughout the season they also provide support and encouragement to recorders as and when required. Since the last Annual Newsletter we have welcomed a number of new Champions to the team. Nick Hall has taken on the role of WCBS Champion for Yorkshire from Rachel Pateman,

adding to his existing role of Transect Co-ordinator. David Prince has taken over from acting Champion Alan Dawson in Norfolk, and Andy Danford has taken over Somerset and Bristol from Penny Wills. We are also pleased to welcome Daisy Dunn on to the team who is the new WCBS Champion for South Wales; the first local Champion for this area since 2015. Over the last few months we have said farewell to Alan Chadwick who has been involved as WCBS Champion for Cheshire and The Wirral since the early years of the scheme. A huge thank you to Alan, Rachel, Alan D, and Penny for their work in promoting and growing the scheme. To find out who your WCBS Champion is please see page 11 of this newsletter.

Champion Vacancies

We have a number of opportunities for new Champions to get involved with the Scheme this year. Vacancies

are currently available in BC Branch areas Lincolnshire, Northern Ireland, and Cheshire and The Wirral. The role would suit an organised person who enjoys engaging with recorders and volunteers. There is no requirement to be a butterfly 'expert', as training and support will be provided by both the WCBS Officer and the local BC Branch. If you are interested in finding out more please contact WCBS Officer, Megan; survey@butterfly-conservaton.org.

BTO Regional Organisers

The WCBS on BBS squares is centrally coordinated by Sarah Harris at BTO HQ, however, we are hugely grateful to the efforts of the BTO's BBS Regional Organisers who help promote the WCBS to their BBS volunteers.

Green-veined White by Andrew Cooper



Brush-up on Browns

There are 11 species of 'brown' butterfly in the UK, but in the wider countryside you are only likely to regularly encounter eight of these, of which the three larger ones below are both widespread, and potentially confusing! Of the other five, three are large and patterned – Marbled White (black-and-white); Wall (orange on brown); and Speckled Wood (buff on brown). One, Scotch Argus, is found almost exclusively in Scotland and has multiple 'eye'-spots on all wings (see page 4). The final species, Small Heath, has an underside similar to a Gatekeeper's but with a maximum wingspan of just 34 mm (similar to that of a Blue). **NOTE:** The three species below (particularly Meadow Brown) are regularly seen perched with wings closed, sometimes with the forewings tucked in behind the hindwings, hiding the all important forewing 'eye' spot.

Meadow Brown | Wingspan:

40–60 mm

Range: Widespread and abundant throughout Britain and Ireland except Shetland. **Habitat:** Almost anywhere, other than high montane areas.

Appearance A single white dot in the 'black 'eye' spot of the forewing. **UPPERSIDE:** males are dark brown (Ringlet-like) but have virtually unmarked hindwings; females are dark brown with an orange blaze on the forewing (Gatekeeper-like). **UNDERSIDE:** both sexes similar (Gatekeeper-like) with a brown-

edged orange forewing and somewhat drab hindwing with dark (not white) spots.

Gatekeeper | Wingspan: 37–48 mm

Range: Widespread in the southern half of Great Britain, its range has been extending northwards in recent years. **Habitat:** Found in close proximity to shrubs, e.g. along hedgerows and sunny woodland rides. **Appearance:** Two white dots in the 'black 'eye' spot of the forewing. **UPPERSIDE:** both sexes have an orange-on-brown pattern on forewings and hindwings. **UNDERSIDE:** both sexes

have an brown-edged orange forewing and a somewhat contrastingly patterned hindwing with white (not dark) spots.

Ringlet | Wingspan: 42–52 mm

Range: Throughout the UK. **Habitat:**

Tall grasslands in scrub, glades and rides. **Appearance:** **UPPERSIDE:** all brown with a conspicuous white fringe to the wings and black 'eye' spots (small or inconspicuous on male; larger on female) on all wings. **UNDERSIDE:** both sexes have distinctive yellow-edged black 'eye' spots that each contain a single white dot.

MEADOW BROWN



GATEKEEPER



RINGLET



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