Backwell Environment Trust

Bulletin 49 - Autumn 2024

www.backwellenvironmenttrust.org

A Very Warm Welcome to our Latest Autumn Bulletin

Ash dieback disease is still very prevalent on the BET reserves, but the worst is clearly behind us now as significantly fewer trees will need to be felled this year. The BET volunteers have been busy over the spring and summer months keeping our network of footpaths clear of vegetation, hedge-laying, removing diseased ash tree timber and scything our fabulous wildflower meadows.

BET Membership

AGM

Ash Dieback

Wildlife Surveys

Reserve Report

Squirrel Bark

Raven Ringing

Insect Numbers

New Species

Membership Renewal

Our membership year runs from October 1st until September 30th and renewals for 2024/25 are now due. We really hope you will consider renewing your membership for another year.

Membership subscriptions and donations are BET's main source of income, we do not receive annual grants.

If you have received a membership renewal form with your bulletin, your BET membership is due to expire. The form and payment details can also be found on the BET website under 'About BET/Membership'.

Gift Aid is a very important source of income for us, so please tell us if there is any change to your Gift Aid status.

Please contact us on Betwoods@yahoo.co.uk if you have any queries.

Thank you for your Continued Support

BET Annual General Meeting

Saturday November 9th 2024

Backwell Parish Hall

The AGM will start at 2pm and we will break for tea, coffee and cakes before the final presentation.

Your trustees will be on hand to answer any questions you may have about BET and its activities, past, present or future.

Our guest speaker will be Martin Williams from the Belmont Estate who will give an illustrated talk on Nature's Secret Connections.

Agenda

- Annual Report from 2023
- The Chairman's Report
- Treasurer's Report
- Secretary's Report
- Reserve Report
- Election of Trustees
- Any other business

Printed copies of the 2023 annual report and the accounts will be available at the meeting.

The link to the report can also be found on the BET website under 'About BET/AGM'.

If you would like to consider becoming a BET trustee, please do get in touch via email to Betwoods@yahoo.co.uk

Ash Dieback Disease

Sadly, ash dieback disease is continuing to slowly kill many of the ash trees on our reserves. This coming winter will be our fourth year of removing heavily infected ash trees close to roads, houses and footpaths, but I'm pleased to say the number scheduled for felling this winter will be significantly less than in previous years. In line with current scientific advice, we are removing ash trees close to the roads and footpaths when they lose 50% or more of their canopy, the consensus being that at this advanced stage of decline, there is no realistic hope of recovery. However, with the additional light now reaching the woodland floor, all the other tree species have been putting on an extra surge of growth to take full advantage of the additional sunlight.

As in previous years, we have left some of the felled logs on the reserve to rot down naturally whilst the excess has been taken off site by Backwell Logs. BET and Backwell Logs have entered into a mutually beneficial partnership where we are able to offload our excess timber in return for a donation for the wood.

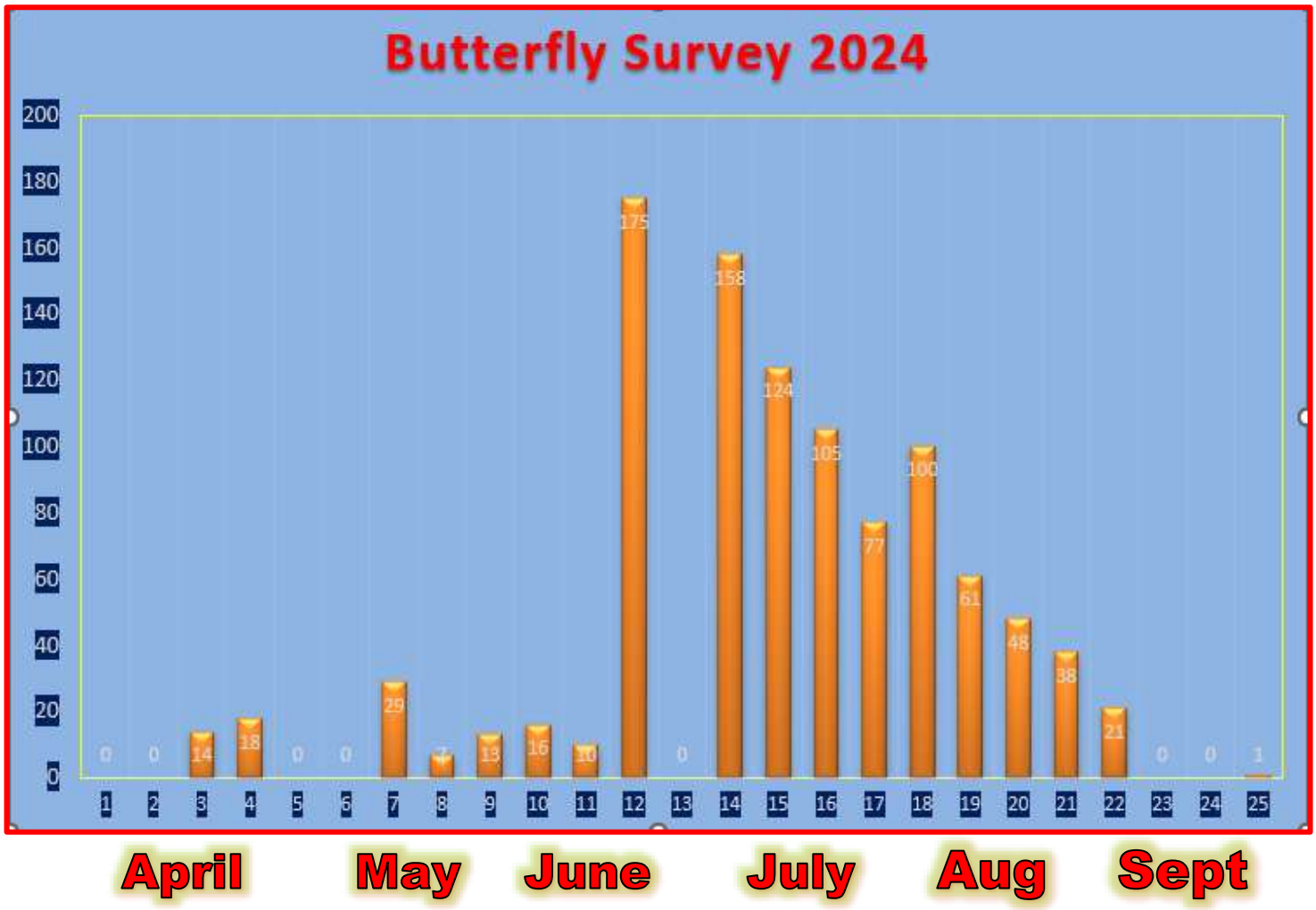
Both Jubilee Stone and Badgers Wood had numerous piles of felled timber left after last winter's felling. The task was complicated by the very difficult access routes to the road, but this year, sack trucks have been used for the first time with great effect in addition to BET's own 'Archie' timber mover and, of course, sheer volunteer muscle!

BET Wildlife Surveys

The BET volunteers carry out regular wildlife surveys on the nature reserves during the year to monitor and record numbers of butterflies, birds, bird nests, dragonflies and reptiles. This data can be invaluable to us and helps ensure we are continuing to manage the reserves in a wildlife-friendly manner.

Butterfly Surveys

BET is one of around 2,000 sites across the UK submitting annual butterfly records to the United Kingdom Butterfly Monitoring Scheme (UKBMS) which is one of the longest running insect monitoring schemes in the world. BET volunteers perform the monitoring of butterfly numbers and species present on our nature reserves every week between late March and early October. The same route is walked at a slow pace as long as the ambient temperature is 13°C or above and the weather is not too wet or windy.



Between the beginning of April and the end of September (24 weeks), a total of **21** butterfly species were recorded with **1,015** individual butterfly sightings logged. However, because the spring and summer turned out to be cooler and wetter than normal, six surveys could not be undertaken this year. If these missing surveys are estimated from the graph trend, a total of **1,262** sightings could have been expected which would equate to a very significant (42%) decline from last year's figures. This steep decline in numbers has been recorded across the country, the possible reasons are discussed in more detail on pages 9 – 11 of this bulletin.

The graph shows the number of individual butterfly sightings for each week of the survey. If a survey was missed due to inclement weather, it has been labelled '0' on the graph.

Most Abundant Species	Sightings	Least Abundant Species	Sightings
Meadow Brown	283	Orange Tip	1
Gatekeeper	213	Small Copper	1
Ringlet	208	Dark Green Fritillary	1
Speckled Wood	66	Brown Argus	1
Brimstone	48	Silver Washed Fritillary	2

Whilst taking part in the survey is undoubtedly a big commitment and requires a fair degree of butterfly identification skills, it's also a fabulous opportunity to see just how our nature reserves change with the passing of the seasons.

Reserve Report

Over the last six months the BET volunteers have been very busy working on a wide variety of tasks from hedge-laying, replacing steps, cutting back the encroaching vegetation next to the footpaths, moving cut timber and scything the wildflower meadows.

So what have those hard-working BET volunteers been up to over the past six months?

Hedging

The removal of diseased ash trees from the BET reserves has generated a lot of small branches which the volunteers have used to create dead-hedges. These should give good shelter for wildlife and in the longer term will be good for fungi as they slowly decay over time.

Step Replacement & Footpath Clearance

During the spring and summer months, vegetation growth rates have been very high so keeping our footpaths clear of encroaching vegetation was almost a constant task for the BET volunteers. As well as footpaths, we have also been replacing any steps that have become unstable.

Scything the Wildflower Meadows

BET's wildflower meadows have done exceptionally well this year as the higher rainfall and short-lived hot spells has suited the flora particularly well. BET started the scything of our wildflower meadows in the late summer and hopes to finish well before the winter sets in.

Volunteer Time

Every year, the BET volunteers freely put in a staggering amount of time and effort, both in the day-to-day running of the Trust, as well as the huge amount of practical work needed to maintain our nature reserves. Over the last twelve months, the fantastic figure of **2,570 volunteer hours** has been recorded. Since the Trust began, an astonishing **41,839** hours have been volunteered so, once again, a **BIG BET** thank you to you all.

Squirrel Bark Stripping

Whilst it's not unusual in any given year to see some bark stripped from the trunks and branches of sycamore trees, this year the damage in the BET woodlands has been especially severe. Squirrels may strip bark from trees for a variety of reasons, they are more prone to doing so when food sources are scarce.

As most of the damage occurred during the spring, it's reasonable to assume that the cool and wet weather interfered with their usual food sources.

Grey squirrels damage trees by gnawing at the stem to get to the sweet, sap-filled layers (phloem tissue) just beneath the bark. This tissue is responsible for the movement of essential sugars around the plant (known as translocation). If this gnawing extends around the full circumference of the stem, the movement of sugars around the plant will come to a halt and the branch or entire tree will die. Trees where bark has been stripped to a lesser extent are likely to have their growth restricted and they are much more likely to succumb to a fungal infection.

Bark stripping usually occurs between late April and the end of July. The most vulnerable trees in the BET woodlands are sycamore, beech and oak aged between 10 and 40 years old, though almost any broadleaved species of tree can be attacked.

Raven Ringing

At rather short notice, the ringing team turned up on an April morning to ring five 3-week old raven chicks nesting on the quarry face. The nest is on a ledge where the peregrines have nested in previous years. The team reckon that the ravens used to nest lower down but, after a rock fall, they have moved up the cliff and usurped the peregrines!

The two climbers were led by Colin Knowles again, a very experienced international climber.

The BTO ringer was Bob Medland, who has been ringing for over 30 years and has ringed all species from little wrens and wagtails to black-backed gulls, gannets, puffins and other auks. They also had a safety spotter on the left side of the quarry.

When they ringed the peregrines three years ago they took lots of measurements of feathers and beaks so it was possible to have a good look at the chicks. They don't take measurements of the ravens as they grow so fast, and kept them well covered in the cloth bags so they didn't get to see the outside world. Apparently if they get a taster, they could leave the nest prematurely!

Colin has been visiting the site every 2-3 weeks and has been unable to see where the peregrines may be nesting this year. If anyone spotted the nest site he would love to know and will return.

Why Have Insect Numbers Been So Poor This Year?

Insects are critical to our ecosystems functioning properly. They pollinate crops, provide natural pest control, decompose waste, recycle nutrients and underpin food chains that support people, birds, mammals and other wildlife. Without insects, the planet's ecological systems would simply collapse.

Does the data back up the anecdotes?

Whilst annual data on all insect populations is limited, the indicators we have say yes, it has been a bad year. British butterflies and moths are probably the best-studied insects in terms of long-term data, this means

butterfly numbers are often used as a proxy for how other insects are doing. The charity Butterfly Conservation organises the annual 'Big Butterfly Count' which is one of the biggest citizen science projects in the world with more than 50,000 people taking part each year. Provisional data from the 2024 count suggests butterflies have had their worst year on record after a wet spring and summer. In 2022, the Count recorded its third successive year of record lows. However, 2023 proved an unexpectedly good year, but it appears the downward trend is continuing again in 2024.

So what is causing the declines this year?

The short-term culprit is bad weather. March and April, which are crucial months for insects, were cool, wet and cloudy. It was the UK's wettest spring since 1986.

Overall, the weather conditions in the spring have made it much more difficult than normal for insects to fly, forage, nest and just generally go about their daily lives. The summer has been slightly better, but not by much – still unseasonably cool in most of the UK for most of June and July.

Insects are very weather-sensitive, so there is always a lot of variation from one year to the next. They are used to bad weather and generally bounce back when things get better, but a lot of bad years can result in long-term downward trends.

Many populations have probably not yet recovered from the heat and drought of 2022 when temperatures in the UK passed 40°C for the first time.

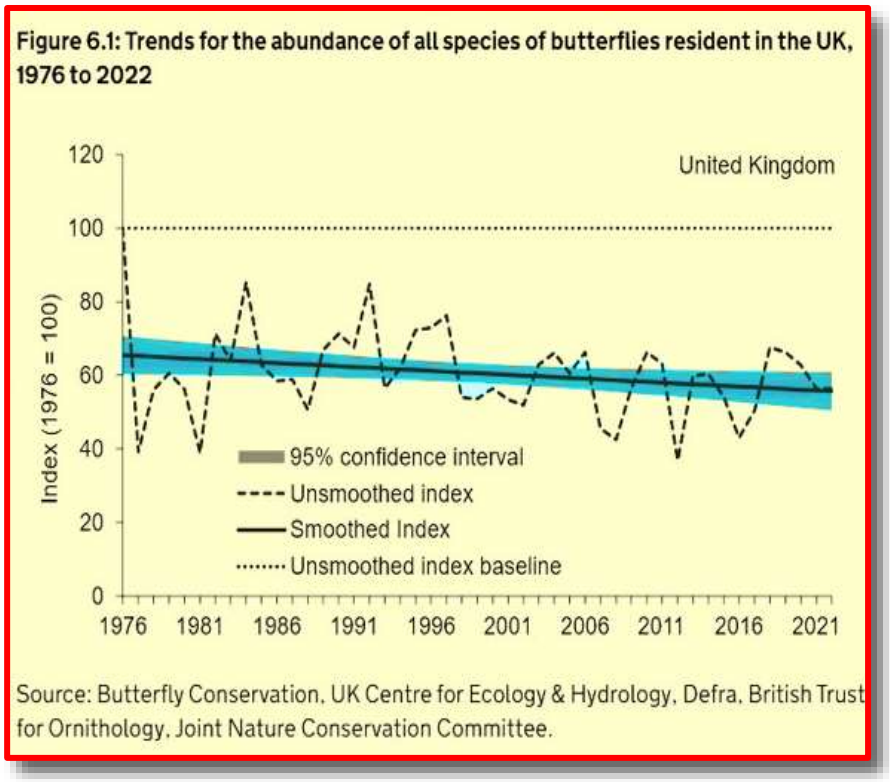
Are bad years becoming more common?

Changes in the climate is slowly altering the natural rhythm of the seasons which all insects are finely tuned to. While one bad year is not an indication that things have changed long term, unusual weather conditions are undeniably increasing in frequency and it is these extreme weather events such as high temperatures or persistent rainfall that can cause the most disruption to insects.

What long-term data do we have?

I'm sure all of us of a certain age can remember that after a car journey, the windscreen and front of the car would become covered in squashed insects – something that simply doesn't happen today.

Whilst it's true, cars have become more aerodynamic over the years, one thing that hasn't changed is the vertical front number plate. A Citizen Science insect survey coordinated by Buglife, has recorded the number of insects sampled on 26,500 vehicle number plates since 2004 and this data has shown a staggering nationwide decline of 78% over the last 20 years.



Long-running studies show that 80% of butterfly species in the UK have declined since the 1970s. Half of butterfly species are now either threatened, or near threatened with extinction. However, butterflies are a drop in the ocean in terms of insect species – there are only 59 species of butterfly in the UK, but more than 24,000 insect species. Insect populations are notoriously hard to measure because their numbers go up and down so much from year to year but our best estimates suggest insect abundance is declining by 1-2% a year.

What is causing the long-term declines?

Insect populations are having to deal with multiple drivers of decline. Historically, the main driver has been habitat loss due to the expansion and industrialisation of agriculture. The loss of flower-rich grasslands, the use of pesticides and changes in climate appear to be the top three factors.

What can I do to help?

Encouraging bee-friendly wild flowers, letting the grass grow long and avoiding pesticides whenever possible will all help insects. It's important to create different habitats within a garden so insects can do their best to protect themselves against extreme conditions.

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New Species on the Reserves

Red kites were almost wiped out in the UK due to persecution and by the early 20th century, only a few breeding pairs remained in Wales. However, re-introductions have since expanded the bird's

range and their population is beginning to recover. In just a few decades, they've gone from being on the brink of extinction to rapidly increasing in number and it's estimated that there are now around 6,000 pairs of Red kites in the UK. Their spectacular recovery shows that with clear and targeted action, we can really make a difference and help struggling species. The BET reserves with their mixture of woodland and grassland should be a perfect habitat for these impressive birds, so let's hope this summer's sighting of a single bird flying over the reserves will lead to a breeding pair setting up home.

Red kites have a rusty reddish-brown body with a deeply forked tail. Their head is pale grey and patterned with dark streaks and they have a yellow beak with a dark hook and pale, striking eyes. Their wingspan can be up to 185cm. On the upper side, they are red-brown at the shoulders with darker tips and edges, while underneath there are characteristic blocks of white before darker, fingered wing tips.

What do red kites eat?

The Red kite is a scavenger and eats mostly carrion, road kill and worms. If necessary, it will sometimes catch small, live prey such as voles, mice and birds.

Red kites first breed at two years old and produce a single clutch of around three eggs. As monogamous birds, mating pairs will return to the same nests each season, adding new material to them during the breeding period. The female stays with the eggs while the male sources her food. When the eggs hatch, the chicks stay in the nest until they fledge at around 60 days old. They will then continue to be fed by their parents for a few weeks.

Where do red kites live?

Red kites nest in broadleaved woodland. They search for food in wooded valleys, pasture and open countryside as well as in suburban areas and towns.

Once confined only to Wales, the red kite is slowly returning to other parts of the UK. Red kites can be seen all year round and are active during the day. Look for them soaring on warm, sunny days when their distinctive forked tail and wheeling flight is on show.