The Cam Valley Wildlife Group

Newsletter

ISSN 1479-8565 ISSUE 98 SPRING 2021

The Starling that thinks it's a Sparrow?

Last summer we noticed a Starling with very distinct markings coming to a bird feeder at the same time as House Sparrows. This became a regular occurrence and then we saw that it was also flying off with the Sparrows to the hedge where they roost. This has become such a familiar sight that we named him.

There are a group of Starlings that roost in an Ash tree at the far end of our garden, but we have never seen Ringo join them. It is well known that large groups of birds in the same family will roost together during the winter, but a lone bird of one family group joining a species in a different family group seems most unusual.

Ringo Starling

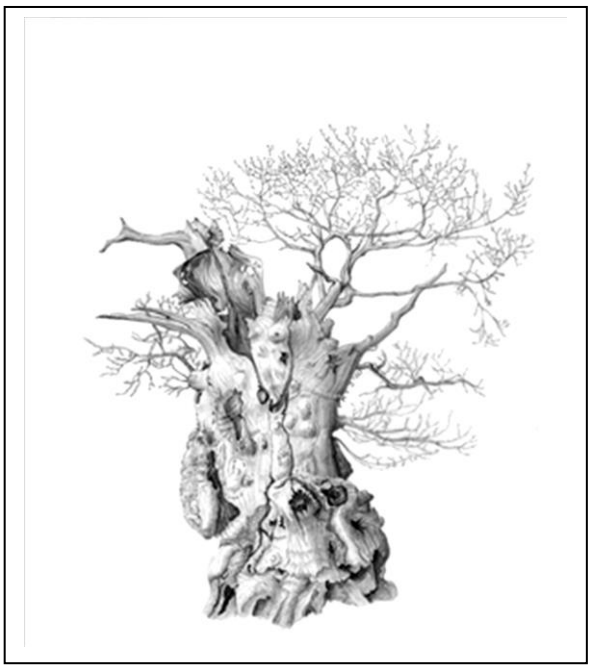
Frank Loughran

Ancient trees

Maybe it's because I am getting old myself that I delight in gnarled ancient trees. They are nature's sculptures that seem to embody the history they have lived through. In recent years I have sought out some West Country examples and tried to capture something of their form in pencil drawings. Big Belly Oak in Savernake and Wyndham's Oak in Dorset are reckoned to be 1,000 years old. The Chestnuts in front of the big house at Stourhead are thought to be between 400 and 600 years old, certainly in place long before the present house.

An oak in the grounds of Halswell Park, Somerset may be at least 400 years old, but along with other ancient trees in that park, is looking in decline.

I would like to know more about the reasons for their longevity. One common factor seems to be pollarding, either naturally by storm or perhaps to harvest the wood. As with willows and hazel it seems pollarding prolongs life. Growing on a private estate or a religious site is also likely to produce some protection, if the owner is so minded.



Veteran Oak tree on the Halswell Park Estate
300 – 500 years old.
Graphite drawing by Phil Taylor

Modern threats - As with the coronavirus, globalisation has always been to the benefit of diseases. In my life time we have lost the great Somerset Elms, with threats to Beech, Oak, Chestnuts, and Ash. Ash die back is now apparent in the old hedgerow trees around Buckland Dinham, where I live.

Two Local Survivors - But I have also found two local hedgerow Ash trees with no sign of die back as yet. Both show a similar form, are completely hollow and seem to have vigorous limbs growing out of the thin outer skin which is all that is left of the original trunk. Both seem to be thriving and support good heads of growth. How, if at all, this form relates to their vigour and lack of disease (so far) I would be interested to know. Do we have an expert in the Cam Valley Society?

The Stoney Littleton tree is in the hedgerow on the north side of Littleton Lane almost directly below the long barrow. I have measured its girth at 7.42m which makes it around 300 years old, the same age as Stourhead House. The Buckland Dinham tree is in a hedgerow between fields and is about 3.5m circumference, suggesting it's 150 years old.

Phil Taylor

Members' photos

Bob Ladd has sent in a photograph of a blackbird with some snowy-white feathers, including a rather fetching eye-ring. This is caused by leucism, a total lack of melanism in skin and associated structures. It is easy to spot in both male and female blackbirds because melanins produce both brown and black colouration.

The information available on this phenomenon in birds was poor until the publication of a large-scale study on the Common Blackbird, *Turdus merula*, in 2018 in the Journal of Avian Biology. That study used three different methods to assess the effect of habitat, age and sex (effects suggested by various local studies) on the presence of leucism – these methods were transects, bird captures and citizen science information (pictures from internet). The study identified habitat and ageing effects and established that the sex effects found needed further study.

Regarding sex effects, although their capture methodology identified greater leucism in male blackbirds, the citizen science images were weighted slightly on the female side. Various previous studies on other bird species had found leucism more prevalent in females or not prevalent in either sex. There were no previous studies on the effect of plumage colour on choice of mate in blackbirds, and there were various other factors to consider that could affect the balance. These included the stronger selection against females from predation, disruption of camouflage in females, higher female mortality during the breeding season, or potentially differing sex-dependent physiological effects.

The study found that there were more leucistic blackbirds in urban than in non-urban areas and the findings included that cities have larger proportions of leucistic individuals in general. Various local studies had found a similar effect of urbanisation in other species, suggesting an association of this common colouration aberration with human-induced habitats. The extent of heritable mutation effects on leucism in blackbirds (such as that identified in feral pigeons) was unclear.

The study drew on human-influenced causes identified by various earlier authors, which included heightened mutagen levels in a bird's environment and a strong negative effect in the oxidative balance of

animals (the balance between free radicals and anti-oxidants within their bodies) in urban habitats, leading to mutations in melanin synthesis processes, death of the cells that produce melanin and alteration of necessary proteins such as enzymes. Other possibilities included poor diet with deficiency in tyrosine, an amino acid needed for melanin production. It has also been suggested that parasitism may play a role, but the study did not consider this specifically.

Although greying with age is not exactly a new idea, the study nevertheless presented the first large-scale support for progressive greying with age in birds. It found a greater prevalence of leucism in older blackbirds, which appeared not to be linked to the birds' habitat or to the study methodology. This finding matched that of the only previous study of this. The ageing question also connects with the greater proportion of old blackbirds in cities than in non-urban areas and to the 'free radical theory of ageing', which links greying to oxidative stress.

Deborah Porter

Snowdrops - Maggie Edwards

Spring Snowflake – Maggie Edwards

Daffodil – Maggie Edwards

Crocus – Maggie Edwards

Early Iris – Maggie Edwards

Pulmonaria or Lungwort – Maggie Edwards

Barn Owl - Gary Kingman

Song Thrushes – Gary Kingman

Red Kite – Gary Kingman

Deer in Gary Kingman's garden

This year's hare – Gary Kingman

Members' photos continued...

Readers may recall that the last Newsletter included a number of photos with no accompanying text. Two of them related both to each other and to a previous member article by Tiny French, who had seen many Ivy Bees, *Colletes hederae*, around Bath and was hoping for news of them from around here. Maggie Edwards sent in photos of both Ivy in flower and of the Ivy bee that uses it as its pollen source. Maggie was lucky enough to have a nesting aggregation of these bees in her garden last year.

Winter now over and Spring firmly sprung, I am pleased to see that the lizards in the garden have come through alright again, spotting three good-sized adults on 16th March, which is a bit earlier than in 2019 and 2020, and one of last year's crop of youngsters, on 22nd. Lizards will grow up to about 15cm in length, live about five or six years and are most commonly shades of brown with spots or stripes. There are a number of colour variants, including yellow, green and black, and these variants are not uncommon. In our garden we have seen

lizards from pale to dark brown and also with much green, plus some very dark juveniles that are pretty black. The only yellow we have seen is on their bellies, which is something you don't often see!

Their diet consists mainly of insects, and spiders, but they also eat other invertebrates such as slugs, snails and worms. They often stun prey before swallowing it. They in turn are prey for a range of animals such as kestrels, merlins, corvids, pheasants, blackbirds, shrews, stoats, weasels, hedgehogs and cats.

They are happy in dry well-drained areas, but also use damp habitats, which are thought to help with growth rate and activity. They need warm exposed spots with good escape routes for basking to warm them up, help develop their eggs and to aid digestion. They also need plenty of dense cover nearby for hunting, escaping, cooling down and birthing. The females typically give birth to between 4 and 10 young. These have developed in shell-less eggs inside their bodies which are laid into a soil cavity, where the egg sacs burst at birth. They often hibernate in groups. Hibernation spots are usually amongst dead wood and rocks and are commonly considered to be frost-free places with good access to basking spots for warming up quickly. These hibernation spots can double up as refuges.

Deborah Porter

A kaleidoscope of butterflies

I found these Peacock butterflies in a barn owl box which had to be moved as we reroofed the barn in late January. When I opened the box they all had their wings closed but they were then in the sun and almost immediately started to open and close their wings. There were over twenty butterflies in the box in total, mainly in three clumps. I placed the box in another sheltered shed where I hoped they would continue their hibernation and be able to survive to lay their eggs on the nettles around the barn next May.

I later found out from Deborah that it wasn't the sun that had caused the butterflies to open and close their wings but the way that Peacocks try to deter predators.

Peacock butterflies have several strategies for deterring predation, which has been the subject of some research (articles published in *Proceedings of the Royal Society B: Biological Sciences* and *Behavioural Ecology and Socio-biology*). They can rely on looking like a dead leaf, which works most of the time.

If they think that the danger has become more acute, they will open and shut their wings, flashing a startle image at a would-be predator. When looking at the butterfly 'upside down' it looks somewhat like the face of a bird, with the body as the beak and the hind-wing spots as the eyes. The wing-flashing can be accompanied by tilting and rotating the body, which is thought, might add to an impression of a bird head.

Some researchers do not agree that the startle effect on predators is associated with the specific impression of a bird's head, though. As the butterfly flicks its wings open, particular parts of the fore and hind wings rub against each other producing a sort of hiss. This combination is usually enough to deter birds such as blue tits that would otherwise eat the butterfly. Interestingly, chickens have also been shown to avoid Peacock butterfly eye-spot displays.

During wing-flashing, the forewing membrane buckles to produce an ultrasonic click which has been shown to deter mice in the dark when the butterfly has been bumped into, but probably can't be heard by birds.

When the danger has receded, the butterfly will do one of three things - keep up the wing-flicking; hold the wings fully open; or close the wings and resume 'dead leaf' mode. Peacock butterflies, by using these strategies this way are better at avoiding predation than the other common dead leaf mimics you might come across such as Brimstone, Comma and Small Tortoiseshell.

I opened the box again in the middle of March during a sunny period and there was no sign of any of them so I again asked Deborah what their chance of survival might be. She was pretty sure that there would be obvious remains if a mouse had got them. They are woken from hibernation by warmth and usually emerge from hibernation at the end of March and beginning of April. It looks like they have either found themselves a different hibernation place after being moved or simply emerged from the box earlier this month in a warm spell. Peacock butterflies do go back into hibernation when they are made cold again. Survival depends on how much fat reserves they had going in and how much has been used up - this increases in warmer temperatures as the butterflies attempt to ''ready' their bodies for spring, which is why they generally don't do well hibernating in houses. As the butterflies were woken once and then put somewhere cold, they were probably fine and survived the winter.

Phil Gait

Your Covid19 tresses

If you have had problems engaging your favourite hairdresser or barber perhaps you could accommodate some wildlife this springtime -

This man with a beard
Who said 'It's just what I feared,
Two owls, a hen,
Four larks and a wren'
Are nesting in my beard!

Fergus Callender

Hedgehogs in our garden

The hedgehog(s) in our garden have been awake for a good few weeks now which is quite early. Hibernation ends in the spring but in recent years it's been reported that hedgehogs are emerging earlier due to climate changes and milder temperatures.

We haven't actually seen any hogs but have seen 'evidence' plus two bowls of kitten biscuits are getting eaten each night from our feeding area. Please excuse a poo 💩 photo but if you see poop like this in your garden it's from a hedgehog. This is probably one of the first signs you'll see that hedgehogs are about so you're very lucky you've got these nocturnal prickly visitors nearby.

When hedgehogs wake up from hibernation they are very thirsty so it's important to leave shallow bowls of fresh water out. It's surprising how much these little creatures drink. If you want to attract hedgehogs into your garden then now is an ideal time to leave out water and food bowls. Providing extra food like

kitten biscuits or wet cat food helps to keep hedgehogs fit after waking from hibernation as they need to build up their weight.

Remember don't feed the milk and bread that we used to do years ago. Hedgehogs are lactose intolerant and this will make them very ill. I'm hoping I'll have some photos of our visitors for the next edition.

Zoe Niccolls

Nature notes April to July 2020

I have been keeping nature notes for seven years now. In the first year I was trying to improve my knowledge by identifying one additional species each day. However now it is a daily nature note – something new to me or unusual, some interesting behaviour, a list of plants spotted somewhere, another attempt to get my head round mosses...

I live in Lower Coleford, so during lockdown my sightings were within walking distance of my home. Another effect of lockdown was that I would go back to the same spots quite frequently and would see how particular plants were growing.

16th April: Herb Paris.
When I first started exploring the woods and meadows near my home, I found a single Herb Paris plant in Leigh Wood. It was growing close to the footpath and for four years it came up only to be trodden on by someone finding their way around a fallen tree. Although the path was cleared over two years ago, there was no sign of the plant until today, a single plant in the same place.

15th May: Newts.
I took a close look into our recently enlarged and relined pond. The water was getting a lot clearer and I started spotting Smooth Newts. I think there must be at least six of them. One large and colourful one that I took to be the male was curling his tail round towards a female and then fanning it very rapidly.

23rd June: Kidney Vetch.
I like looking around disused quarries to see how they are being recolonised. Back in April I had noticed a few leaves growing out of a pile of gravel and quarry dust in a damp part of one of our local quarries. I thought I might have found some Kidney Vetch. Today I went back to check. It was flowering and it was Kidney Vetch.

24th June: Marbled White Butterflies.
Sometimes I see old favourites and decide to find out more about them. Marbled White butterflies do not lay their eggs on caterpillar food plants. They drop an egg whilst perched on a grass stem or whilst flying in a suitable habitat. Luckily the caterpillars are happy with quite a range of grass species.

25th July: Broad-leaved Helleborine.

After a late frost I found some browned leaves in a meadow between Coleford and Holcombe. The leaves withered and I thought I would need to wait until next year to see them again. However, another plant has appeared and has a flower, a Broad-leaved Helleborine. It was touch and go whether it would flower before the hay cut.

28th July: Chalkhill Blue

My walk today took me past a spot in the Holcombe area where limestone grassland plants grow – Scabiouses, Wild Thyme and Lady's Bedstraw. It was a bit windy and I didn't see any blue butterflies. However on my way home, in the more sheltered neutral grassland of Edford Meadows, I was surprised to see this Chalkhill Blue.

31st July: White Stork

Whilst I was in our garden today, I saw a White Stork flying over. Initially it was partly obscured by the trees in our hedge. Whilst I waited to get a good view, I quickly dismissed several more common or likely species – Great Black-backed Gull, Heron, Great Egret or Common Crane. However, I then saw the long neck held out straight, long legs out behind and the marked contrast between white and black. However, I was still quite relieved that my husband and two other people in the village saw it too.

Veryan Conn

The job of citizen science

I first came across the term citizen science to describe a project to classify galaxies by asking volunteers to study images from space telescopes. It was the spread of personal computers and access to the internet that made such projects possible – investigations that could not be undertaken by professional scientists alone but could with an army of online volunteers. Wildlife organisations were quick to grasp the opportunities for research this approach offered but this was not the start of their use of volunteers to collect survey data. There were already well-established projects based on the submission of observations on paper forms and these have steadily transformed into online surveys.

The internet allowed these schemes to blossom to become much more than a one-way transmission of data. Now, the volunteers get so much more in return: access to online databases, safe storage of their own data and photographs plus a wide variety of feedback in the form of reports, graphics and maps. There is also online assistance to help with species identification and most schemes have mobile apps to record observations.

There is now a huge variety of wildlife citizen science projects to choose from – your favourite species will almost certainly be surveyed by at least one. Everything from midges (RHS Midge Survey) to Red Deer (British Deer Society distribution survey) are being counted by volunteers. It will only be possible to consider a few of these projects in this article so the focus will be on well-established surveys that can be easily carried out in your own garden or locality and which have user-friendly web sites and provide a lot of feedback and other information to participants.

Let us start with what may well be the most important of the wildlife citizen science projects because of its significance for the study of climate change. This is the Woodland Trust's ***Nature's Calendar***. It has been

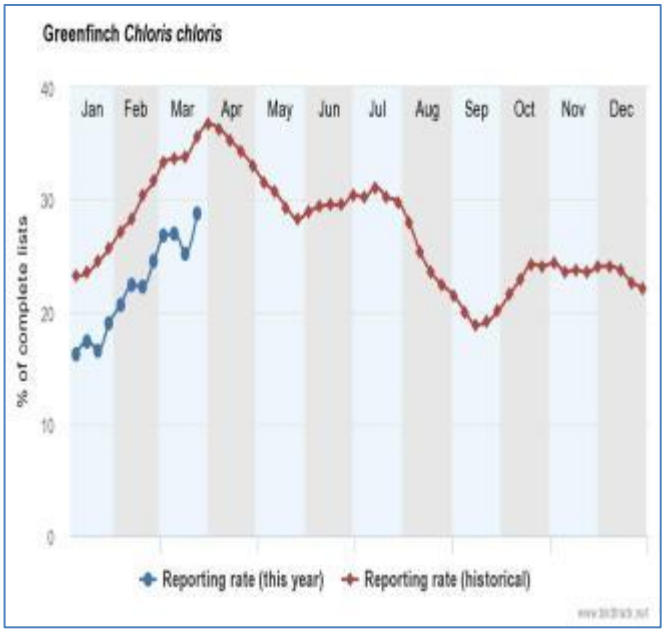
running for 20 years but the Trust has collated records going back much further than that; for some species as far as the mid-18th century.

I learnt a new word when I started recording, *phenology*: the study of seasonal changes in plants and animals from year to year. Participants record the seasonal markers of a limited set of species. Although run by the Woodland Trust it collects data on more than just trees; shrubs, wildflowers, grasses, birds, amphibians and insects are also observed. For each species, specific events which mark the changes of the season are recorded. For trees and shrubs, it is all the leaf stages from budburst to bare tree. For birds it is first nest building and first feeding of young and the first and last sightings of seasonal visitors like Swallows and Swifts in the summer and Redwings and Fieldfare in the winter.

Participants do not have to record data on all the species, you can do as many or as few as you like. What is important is that you observe the same tree, shrub or pond each year and that wildflowers, birds, butterflies and other insects are looked for in the same locations annually.
* Website: https://naturescalendar.woodlandtrust.org.uk/

Nature's Calendar first leaf and bare tree data has been used to show how the lengthening of the leaf-bearing period of several tree species is related to higher temperatures (1). Details of this and other scientific papers using the data can be found here:
https://naturescalendar.woodlandtrust.org.uk/analysis/research-reports/

The British Trust for Ornithology (BTO) runs two major citizen science projects. The first, ***BirdTrack*** allows observations of any birds, anywhere and at any time to be logged. It is the major online resource for the bird-watching community. All you have to enter is the location, date and the name and count of the species seen.



You can either enter sightings as a complete list of everything you observed or as a casual list with just one or a few species. The BTO use the percentage of lists containing a particular species as a key statistic to analyse the data. Graphs can be quickly seen of any species comparing this year's trend with the historical trend.

Website: https://www.bto.org/our-science/projects/birdtrack

BirdTrack data have been used to show how the timing of bird migration to and from the UK has changed since the 1960s. The spring arrival for many common migrants were found to have become significantly earlier, with six species, including Swallow, House Martin and Chiffchaff, coming back to breed more than 10 days earlier than they used to (2).

The second BTO project ***Garden Birdwatch*** is a wonderful choice for anyone who just wants to record what they see in their garden. It asks that you count the maximum number of any species you observe at one time over the course of a week. As well as birds, you can also submit data on butterflies, mammals, reptiles, amphibians, butterflies, dragonflies, bees and other insects.

Unlike the other surveys referred to in this article that are all free, joining *Garden Birdwatch* costs £17 per year. However, they are currently offering free membership for a year to encourage people to take part during the coronavirus lockdown.

The increasing wildlife value of gardens is reflected in the growing body of research using *Garden Birdwatch* data. For example, a study of trends in mammals visiting gardens (3). Other scientific papers and current projects can be found here: https://www.bto.org/our-science/projects/gbw/publications/papers

Other BTO papers which use both *BirdTrack* and *Garden Birdwatch* data can be found here: https://www.bto.org/our-science/topics

Another garden-based survey is Butterfly Conservation's ***Garden Butterfly Survey***. Participants can make as many observations as they like but as with *Garden Birdwatch* you are asked to count the maximum of a species you see at any one during the period of observation. Website: https://www.gardenbutterflysurvey.org/

This project has only been running since 2016 and has yet to lead to scientific papers. Details of other Butterfly Conservation research can be found here: https://butterfly-conservation.org/our-work/science

The final project to recommend is the Biological Records Centre's ***iRecord***. This is a massive undertaking that has provided data for a huge number of scientific studies (4, 5). A full list of BRC research studies can be found here: https://www.brc.ac.uk/research-publications

It is another system that allows participants to enter wildlife observations of any species, anywhere and at any time. It also allows you to upload any past records you may have. Some species groups and more unusual entries are verified by experts – but this can take a very long time. It is not the easiest of websites to use and navigate but for the most serious citizen scientists it may be the recording system of choice.
So, what are the joys of citizen science?

- First, there is the joy of knowing you are contributing to the advance of scientific knowledge, which will help conserve species and track how and if they adapt to the threats of climate change.
- Then, your identification skills *will* improve – and there is plenty of help online for this from each of the projects mentioned. There is even a dedicated website to assist **– *iSpot*** which has links to a wide variety of ID resources and an online community to offer confirmation or alternative suggestions. https://www.ispotnature.org/
- Have a better feel of what is going on in your garden and locality and the rhythm of the seasons. This is well described by a veteran contributor to *Nature's Calendar*: https://naturescalendar.woodlandtrust.org.uk/blog/2020/20-years-of-recording-with-natures-calendar/
- Be tempted into more specialised surveys that will get you out of your garden deckchair and help keep you fit; try walking a weekly butterfly transect for Butterfly Conservation or join in a nesting birds survey for the BTO or come along to the wonderful CVWG Botany Walks!

- And finally, spreadsheets! Confession time: yes, I am one those people with an 'I ♥ spreadsheets' mug. You don't have to as the websites store your data and photos to explore and provide some analysis of your records. However, if you like trends and averages, graphs and databases – citizen science is the hobby for you.

Now then, to end we must ask if the residents of the Cam Valley already participate much in wildlife citizen science. This is a question we can have a go at answering by looking at the maps provided by some of the projects. Around 180 people from our area took part in last year's Big Butterfly Count and we can guess it may have been a similar level of participation in the Big Garden Birdwatch (the RSPB are not so hot on feedback). Undoubtedly these two surveys are fun, raise funds and draw people into a deeper interest in butterflies and birds. However, these snapshot surveys are not much used in science. For that citizen scientists need to be a little bit more dedicated and systematic. *Nature's Calendar's* species maps show only a handful of Cam Valley residents ever submit observations. This rises to about half a dozen regulars for the BTO's *BirdTrack*. So, if we are to see Cam Valley wildlife recorded for science please consider becoming a citizen scientist.

** Due to recent IT problems, it is not possible to register with this project for the time being.*

References

1. Newson et al. (2016) 'Long-term changes in the migration phenology of UK breeding birds detected by large-scale citizen science recording schemes'. *International Journal of Avian Science*, Volume 158, Issue 3.
2. Kendon et al. (2020) State of the UK Climate 2019. *International Journal of Climatology*, Volume 40, Issue S1.
3. Toms and Newson (2006) 'Volunteer surveys as a means of inferring trends in garden mammal populations'. *Mammal Review,* Volume 36.
4. Pocock et al. (2015) 'The Biological Records Centre: a pioneer of citizen science'. *Biological Journal of the Linnean Society*, Volume 115.
5. Roy et al. (2014) 'Celebrating the first 50 years of the Biological Records Centre'.

Frank Loughran

Any personal data you provide in submitted articles (e.g. names, images, contact details) that is not otherwise held by us will be used for the purposes of newsletter publication only and will not be shared without your consent. Please be sure that you have the permission of any person who can be identified from your article, or the permission of a parent/guardian in the case of a minor. Our Data Protection Policy is published on our website. A paper copy is available on request.

Next Newsletter: The copy date for the next Newsletter is **15th June 2021**

This Newsletter is published four times a year by Cam Valley Wildlife Group, an independent, volunteer-run wildlife group, covering Midsomer Norton, Radstock and surrounding villages.
To contribute articles, or provide feedback on previous articles, contact the Editor:

Elizabeth Brimmell at liz@ebrimmell.co.uk or telephone: 01761 453926.
For further information contact Deborah Porter at camvalleywildlife@gmail.com or visit our website: https://cvwg.org.uk