



## What has happened to Mrs Tiggy-Winkle?

I was interested to read the article 'When did you last see a hedgehog?' in the last newsletter, noting a halving of the rural population since 2000, and a third less urban hedgehogs. The New Scientist journal reports an overall loss of 66% since a 1995 survey. These alarming figures set me thinking about other possible reasons for this decline in hedgehog numbers. The increase in traffic on our roads is one part of the puzzle, but why this rapid decline in numbers since 2000? There has been no sudden change in road building or traffic density and if this is the major cause surely the loss should be worse in suburban and urban areas where there are more roads and more traffic?

Despite research there are no definite answers to explain why the steady decline in hedgehog numbers has apparently become rapid. Loss of habitat is one possible reason with hedges being removed to give larger machine-friendly fields. But again, there have been no recent major changes in farming practise and hedgehogs are adaptable and not fussy about either nest sites or food sources.

I believe one important factor is poisoning due to slug pellets. Hedgehog numbers have declined as their use has increased. The agricultural use of metaldehyde as a molluscicide began in the 1940s and has risen sharply since 1990, peaking during 2008 and 2009. These pellets affect hedgehogs in three ways: direct consumption, consumption of slugs and snails which have eaten pellets and consumption of carrion which has itself been killed by these pellets. The last live hog I saw on a day out in Wales was wobbling on its legs and salivating, probably a metaldehyde victim.



As well as the many gardens and allotments I see liberally sprinkled with blue pellets, our farmers use them by the ton. The 2020 ban on Metaldehyde pellets is excellent news for hedgehogs and other mollusc eaters, and is long overdue. To quote the DEFRA Secretary "It is clear that the risks to wildlife are simply too great – and we must all play our part in helping to protect the environment". The replacement 'slug' pellets using Iron Phosphate seem much less toxic to higher species, and I'm pleased to say the even more highly toxic Methiocarb pellets were banned back in 2014. I believe that these bans will really help the hogs.

Although others may disagree, I also believe that the increase in the badger population has also had a strong and underestimated impact on the hedgehog numbers. Road kills are an indicator

of the local populations of each species. There was a time when it was rare to see a badger road casualty, whilst squashed hedgehogs were a common sight. The reverse is true now; I see dead badgers regularly but haven't seen a flat hedgehog for a long while. I don't think that this reversal is because of a change in road sense of either species. The Protection of Badgers Acts of 1972 and 1992, the Wildlife and Countryside Act 1981 and also European legislation are a good thing. Since the powerful act of 1992 there has been less 'control' of badger numbers by gamekeepers and land owners and the population of badgers has doubled. Meanwhile the hedgehog population has halved. Is this merely a coincidence? I think not. The plain fact is that badgers eat hedgehogs.

Some say that badgers will only eat hedgehogs when times are hard, but my own experience



says otherwise. I lived at Hallatrow on  $\frac{3}{4}$  acre for 26 years. In the middle 1990s there were four hedgehogs visiting regularly to be fed. I remember being excited when the first badger appeared at the feeding station. Over the next few weeks the badger became a regular visitor but the hedgehogs progressively disappeared. I found all four of their sad empty skins on the land, including one which had been dug out with its nest from under a shed. I have some night vision video from this time of a hedgehog screaming in terror as a badger approached it whilst feeding. This predation took place during an ordinary summer, not during 'hard times'. Badgers were still visiting when I

moved out in 2013, but I never saw another hedgehog there. Others have told me of similar 'badgers in, hedgehogs out' experiences too.

Clearly hedgehogs do not seem to have benefitted from reduced hibernation losses in the recent warmer and shorter winters and it seems unlikely that climate change has affected the mainly invertebrate diet of both species, since badgers continue to thrive. But badgers are known to sniff out hibernating hogs in the 'hard times' of winter.

So what can we do to help? Support the road signs initiative in the last issue to help safe crossings and throw out all those slug pellets. Providing suitable safe nest sites will also help. Leave a patch of brambles, have a steamy and leafy compost heap rather than having a bonfire and consider building a hog house from some old timber, preferably all in badger-free areas. But I am probably preaching to the converted!



P.S. I am not a badger hater; I like Brocks and observe them when I can. I am just curious about their role in those changing population numbers.

**Terry Goodhall**

## CVWG Events Programme April – September 2019

### Saturday 27<sup>th</sup> April 2019

Herons and early butterflies at RSPB Swell Wood, A378 near Langport, TA3 6PX.

Meet at 11.00 am in the RSPB car park.

We will aim to car share as much as possible as limited parking. Please bring packed lunch.



### Sunday 19<sup>th</sup> May 2019

Smallcombe cemetery in Bath. Meet at 2.00 pm at entrance

BA2 6DD. Afternoon exploration. Following talk last year by Marion.

Please bring drink and snack. No parking at the cemetery.



### Sunday 9<sup>th</sup> June 2019

Open day at West of England Falconry,  
Newton St Loe, Bath, BA2 9BT

Meet at 11.00 am in their car park

Charity supporting owls and birds of prey. Bring drink and packed lunch.



### Sunday 7<sup>th</sup> July 2019

Gants Mill & Garden

Gants Mill Lane, Bruton, BA10 0DB

Meet at 2.00 pm at garden entrance.

Garden with ponds, waterfalls and riverside walk. Summer perennials. The watermill also open. See National Garden Scheme website for full details.



### **Saturday 28<sup>th</sup> September**

Visit to Stourhead to see autumn colour

(And maybe tree sparrows?)

And Diana's pictures in Wildlife Artist International Exhibition

Further details nearer the time.



If you need any more information about anything please contact Judy on 07460 278311.

[judy@swallowcharity.org](mailto:judy@swallowcharity.org).

### **Judy Hampshire**

## **Bees, beetles and aeroplanes**

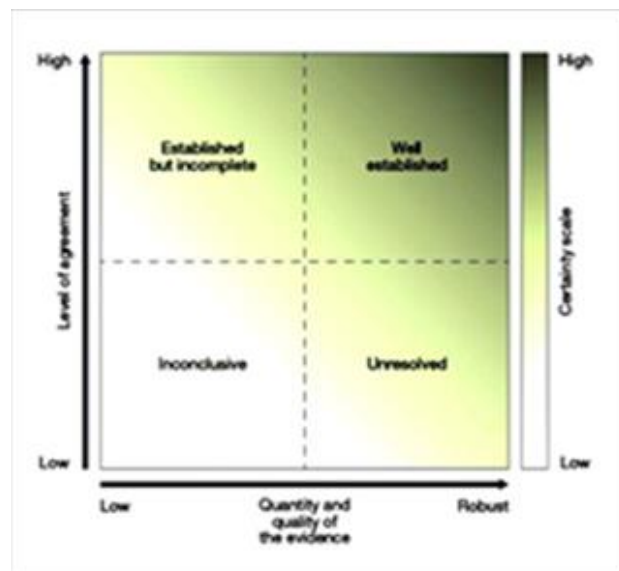
Now what do aeroplanes have in common with bees, beetles and some other invertebrates you may ask? One answer is sensitivity to the electromagnetic radiation (EMR) which is emitted by mobile phones, masts and other devices.

You may have noticed that your mobile phone, tablet or laptop has an 'airplane mode'. If you are flying from one location to another and have one of these devices with you, you will be asked to switch on this mode for the safety of all on the flight to prevent unwanted electromagnetic interference affecting the operation of sensitive aeroplane instruments. What this mode does is to prevent your device from connecting to the internet and cellular networks - so no Bluetooth or wi-fi connection without an in-flight gets-around!

But what is the effect on invertebrates? 'Poorly researched' in general is the answer, but evidence is mounting and some of it is compelling. In 2018, the first conference on the impacts of artificial electromagnetic radiation on flora and fauna took place, organised by EKLIPSE, an EU funded action to develop mechanisms to address requests from policy makers and other societal actors on biodiversity related issues. Buglife made a request regarding the impact of EMRs on invertebrates and so EKLIPSE did a scoping exercise to compile a list of publications relevant to the impacts of a range of types of EMR on invertebrates, vertebrates, and plants. It invited selected experts to analyse these publications and help prepare for a larger consultation through a web conference. The overview report included an analytical grid, with the publications identified per taxonomic

group and radiation type. Different comment sections were added to assess the quality of the studies (technological aspects and biological aspects), the conditions of the studies, the results, the knowledge gaps, etc. and there were four ratings, from bad quality to excellent. The aim was to provide information that would provide an overview of current knowledge and identify knowledge gaps and to demonstrate the degree of confidence that scientists and decision-makers could have in the evidence.

The Intergovernmental Platform for Biodiversity & Ecosystem Services (IPBES, 2016) qualitative ‘four-box model’ was adopted. This provided an accessible way of demonstrating the assessment of the quantity, quality and level of expert agreement in the evidence and showing what was and was not established with what degree of certainty. The four resulting box categories for particular effects were ‘established but incomplete’, ‘well established’, ‘inconclusive’ and ‘unresolved’.



Major problems were the lack of available good quality studies, the lack of standardised methodologies and study designs and the lack of replication studies. Despite this, there was enough evidence available to draw some preliminary conclusions using the background work through the medium of the web conference, some of them with a high degree of certainty. It was generally accepted that there is a pressing need to strengthen the scientific basis of the knowledge on EMR and their potential impacts on wildlife. Without sound, high-quality, replicable experiments, it would not be possible to provide policy-makers and the general public with credible, transparent and easily accessible evidence.

Because of an insufficiency of good quality studies that had been replicated or could realistically be compared with others, no conclusions on invertebrates came into the category of ‘well established’. However, it was established that EMR could be detected by, and posed a risk to, the physiological orientation/movement mechanisms of invertebrates. There was some compelling evidence that EMR had an effect on the diversity or abundance of invertebrates (specifically bees, wasps, beetles,



Stem-nesting bee *C cyanea*

bee-flies and hoverflies), but as there was only one study that looked at the impact of mobile phone antennas on communities of invertebrates there was nothing to compare it with and so despite the study's quality the evidence had to be categorised as ‘inconclusive’. That particular study found that populations of aerial nesters decreased while those of ground nesters went up, the speculation being that the ground-nesters were largely protected from the EMR in the ground and were taking advantage of the waning populations of aerial nesters. The

effects of EMR on reproduction in lab studies were unresolved due to conflicting findings. The effect on plants was not analysed using the ‘four-box model’ approach, but the conclusions were that metabolic changes, gene expression modifications and alteration of plant development were reported after exposing plants to High Frequency EMF in laboratory studies and open environment.

When the conference voting took place (each participant had up to three votes), three figures stood out in particular. The highest percentage of votes in the Invertebrate session for the most important research need/priorities was *'More funding to study EMR impacts on invertebrates'* (29%). In the Plants session the highest percentage on policy recommendations was for *'Define legal limits of EMR (based on scientific results), that will not be harmful to humans and wildlife'* (25%). Both the Plants session and the Invertebrate session identified a need for standardisation of methodologies and study design (22%).

Further information, including links to YouTube videos of the conference can be found on the EKLIPSE website ([www.eklipse-mechanism.eu/emr\\_conference](http://www.eklipse-mechanism.eu/emr_conference)).

So, taking a precautionary approach, it would be advisable to turn off your mobile phone, tablet or lap-top or put it onto 'airplane mode' if you are spending time in close proximity to invertebrates, especially those that nest/develop above ground (in dead and living plant stems, wood, hives, etc.).

**Deborah Porter**

## Botany Walks 2019

**Contact Helena Crouch for more information on any of the walks.**

**Tel: (01761) 410731 or mobile: 07773037001. Email: [helenacrouch@sky.com](mailto:helenacrouch@sky.com)**

All walks are on Wednesday evenings, meeting at 7.00 pm.

Please lift share whenever possible – parking may be limited. Everyone is welcome.

Wed 3 Apr **CLUTTON CHURCHYARD [6258]**

Park in Venus Lane and meet on the triangular green opposite the church (ST623589) to explore the churchyard and perhaps beyond.

Wed 10 Apr **HALLATROW [6356]**

Meet and park in Hallatrow, in the lay-by off Claremont Gardens (ST638571). Taking B3355 from Paulton to Hallatrow, Claremont Gardens is on left just before roundabout. A walk in the fields south of Hallatrow.

Wed 17 Apr **HAYDON [6853]**

Park and meet in Grove Wood Road (ST686539) for a walk around Haydon.

Wed 24 Apr **WHITE OX MEAD [7158]**

Park in Eckweek Lane, Peasedown St John and meet by the Cemetery (ST711577) for a walk to see Bath Asparagus.

Wed 1 May **RADSTOCK [6855]**

Park and meet in the car park in Waterloo Road (ST689549) for a walk along the Colliers Way cycle path.

Wed 8 May **CHILCOMPTON [6451]**

Park and meet in Greenditch Close, which is on the north side of the B3139 through Chilcompton, at the west end of the village, just before Parsonage Lane (ST640513) for a walk in the centre of Chilcompton, exploring the site of the old watercress beds.

Wed 15 May **BABINGTON WOOD [7051]**

Park in Kilmersdon and meet at the Village Hall (ST696523) for a walk to this interesting wood, where we should see Solomon's Seal, Goldilocks Buttercup and Tuberous Comfrey.

Wed 22 May **CLEAVES WOOD [7557]**

Park and meet in Wellow car park (ST738580) for lift share to Cleaves Wood where parking is limited. As you drive through Wellow from Peasedown St John, the car park is on the right, signposted but easy to miss! Please arrive promptly by 7.00pm for car share.

Wed 29 May **MIDSOMER NORTON BATCH [6654, 6754]**

Park in South Road car park and meet in the north east corner of the car park (ST666541) for a walk up to the cycle path to explore the batch.

Wed 5 June **COLLIERS WAY, NORTH OF MELLS [7350]**

Meet at Conduit Bridge (ST730505) for a walk along the cycle path. There are places to park along Conduit Hill, but please lift share.

Wed 12 June **SOUTHSTOKE [7460]**

Park in village and meet at seat on green (ST747613) for a long walk south from the village. Please lift share as parking is limited.

Wed 19 June **CHEWTON WOOD [6155]**

Park and meet at the Farrington Gurney end of Pitway Lane (ST627556) for a long walk to Chewton Wood.

Wed 26 June **EXCURSION TO HEAVEN'S GATE (Led by Diana)**

Meet in the car park for Heaven's Gate (ST828422) for a walk through woodland to enjoy wonderful views over the Longleat Estate. From Frome take the A362 to Warminster. At the Longleat roundabout (Picket Post Gate), bear right towards Horningsham. The car park is about 1.5 miles along this road on the left.

Wed 3 July **ODD DOWN P&R [7361]**

Meet by the shelter at the Park & Ride car park (ST733614) to record plants around the site.

Wed 10 July **EXCURSION TO UBLEY WARREN**

An evening exploring this wonderful SWT Reserve and SSSI on the Mendips, where species of acidic and calcareous soils grow together and former lead mining activity has created conditions for many interesting and rare plants. Meet on the roadside on the bend just South of Charterhouse church (ST503554). Lift share please as parking is limited. The ground is uneven and hilly, so please wear stout shoes or boots.

Wed 17 July **KILMERSDON CUTTING AND CYCLE PATH [6952, 7052]**

Park in Kilmersdon and meet outside the church (ST695524) for a walk along the cycle path (with optional exploration of Kilmersdon Cutting, which is a steep bank).

Wed 24 July **FAULKLAND [7354, 7353]**

Park where you can and meet on the village green in Faulkland (ST739545) for a walk east of the village. (Peter will be leading the walk this week).

Wed 31 July **CROCOMBE, TIMSBURY [6759]**

Park locally and meet at the junction of Lippiatt Lane and Bloomfield Park Road (ST669592) for a walk in an under-recorded square.

Wed 7 Aug **WELTON BATCH AND BINCE'S LODGE LANE [6655]**

Park in Welton Grove (off A362, opposite Welton Baptist Church) and meet by the small green with a circle of trees (ST665551).

Wed 14 Aug **DUNKERTON [7159]**

Park and meet in Dunkerton by the church (ST710593) to explore the churchyard and surrounding fields.

Wed 21 Aug **WELLOW [7458]**

Park and meet by the church in Wellow (ST742583) for a walk north of the village.

Wed 28 Aug **PEASEDOWN ST JOHN [7057]**

Park in car park in Greenlands Road or on street and meet outside Methodist Church (ST703574) for a village walk.

Wed 4 Sept **HINTON BLEWETT [5956]**

Park in the village and meet outside the pub (ST594569) for a short village walk, finish back at the pub.

**Helena Crouch**

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**Next Newsletter:** The copy date for the next Newsletter is **15<sup>th</sup> June 2019**.

**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.**

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