



WILDLIFE GARDENING FORUM

E-newsletter: May 2023

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@WLGForum



Brimstone butterfly



Well, after a cold start to the year it feels like spring has at last sprung. Hairy-footed flower bees on the pulmonaria, fat queen bumblebees on the cherry blossom, tadpoles developing in the garden pond and the first of the house martins arriving on favourable wind currents blowing up from their wintering grounds in Africa (the proper meaning of a tail wind?).

The new macro lens for my phone – a Christmas present from my husband that has languished in a drawer through winter – is proving quite an obsession, making me hunt for the small and the wondrous. Not exactly pro quality but



Wing detail of a brimstone butterfly

when I zoom in on the wings of a brimstone butterfly, warming up on one of the early days of spring, I see the rows of scales and am reminded of the detail in nature that's so easy to overlook. The David Attenborough *Wild Isles* series on BBC One deserves credit for turning its cameras onto the wealth of wildlife we have across the British Isles. From the secret sex lives of lords and ladies (*Arum maculatum*) to the dramas of life in a puffin colony. We at the Wildlife Gardening Forum can help capture this upsurge in appreciation for nature at home by encouraging people to garden in wildlife-friendly ways. So do spread the word and encourage your friends and colleagues to [join us here](#) – remember sign up is simple and FREE!

And finally, what a super online event our January 'Evening for Wildlife Gardeners' was. Thank you to everyone who helped it to run smoothly (we'll gloss over the odd technical glitch such as Johan's computer dying just at the moment he was due to press record!) and in particular to our excellent speakers, Dave Goulson, Rob Jaques and Mark Schofield. If you missed it or simply want to watch again you can catch all the talks [here](#). And if you have suggestions for speakers or topics for our next online event (planned for late 2023), do drop us a line at info@wlgf.org.

Helen Bostock, Chair WLGf, Warwickshire

Page Contents

- 2** [Forum News](#)
- 4** [Patron's Patter](#)
- 5** [Forum noticeboard](#)
- 6** [Making the headlines](#)

Page Contents

- 8** [Wildlife gardening research](#)
- 13** [Citizen science](#)
- 14** [And finally...](#)



Forum news

Bring your lawns to life – new *Wild About Gardens* campaign

The Wildlife Trusts and Royal Horticultural Society (RHS) are calling on gardeners to reimagine their lawns this summer as they launch their annual Wild About Gardens initiative. The charities are encouraging gardeners to experiment with a new look lawn in 2023 for the benefit of wildlife and also the wider environment. They're inviting people to raise the blade on their mower and cut their grass less regularly, embrace daisies, dandelions, clovers and other naturally flowering plants and even grow container lawns if space is at a premium.

Lawns left to grow long are shown to help mitigate flooding by better soaking up rainwater, counter the heat island effect in urban areas through their cooling properties and capture pollutants. They're also better at resisting browning during dry spells than short grass owing to their longer roots. This means that their benefits continue into the height of summer and provide all-important habitat for a whole host of insects including ants, bees and butterflies.

Five ways to love your lawn this year

- Reduce the frequency of mowing to once every three to four weeks to allow flowers such as dandelion and speedwell to bloom and help pollinators.
- Keep some areas short as pathways, sunbathing spots and foraging areas for worm-eating birds. For the rest, let the grass grow a little longer, offering shelter to grasshoppers and other insects. In turn, these creatures are food for frogs, birds and bats.
- Allow parts of your lawn to grow long for the whole summer so that caterpillars can feed and transform into butterflies and moths.
- Turn a blind eye to the odd bare patch within a lawn as these provide sites for ground nesting bees.
- If you do want a luscious green carpet, consider growing hardy yarrow within your lawn or, where there's limited footfall, experiment with a tapestry lawn and grow herbs and flowers such as chamomile and creeping thyme.

To download a copy of the *Wild About Gardens: bring your lawn to life* guide and to pledge to take an action for wilder lawns, visit www.wildaboutgardens.org.uk



Shop with Easyfundraising to support the Forum

The banner features the Easyfundraising logo on the left and the Wildlife Gardening Forum logo on the right. The main text reads: "Turn your online shopping into everyday magic for [redacted] with easyfundraising". Below this, it says "You shop, brands donate to us. It won't cost you any extra!". The background is a light teal color with a white grid pattern on the right side.

Did you know you can support The Wildlife Gardening Forum by raising money every time you shop online? Support that means we can continue to deliver online events and encourage even more people to garden with wildlife in mind – and it doesn't cost a penny!

We're using Easyfundraising, a free fundraising platform that allows us to earn money when we all shop online. Easyfundraising works with over 7,000 online retailers – everyone from Tesco, eBay, Sports Direct, M&S, Boots, Just Eat, Booking.com and everything in between.

Once signed up all you need to do is start your shopping journey at the Easyfundraising website, use the browser extension or app (information will be provided when you register) and the retailer you shop with will send us a free donation based on how much you spend.

With the cost of living impacting everyone, this isn't about asking you to spend more, but to make you aware that if you're making an online purchase anyway, that by using

How to sign up

- 1 Visit the link below or scan the QR code
<http://efraising.org/zVPe7sLNHE>
- 2 Register and download the easyfundraising app
- 3 Shop with your favourite brands



The banner includes the text "Download the easyfundraising App" and shows icons for Google Play and the App Store. It also features a Trustpilot rating of "Excellent" with 3,945 reviews and a star rating of 4.5 out of 5.

Easyfundraising you can give to us at the same time and at no additional cost to you.

So, please support us if you can by registering yourself today as it only takes two minutes and all you need is your email address. Please also share with your friends and family if they'd also like to help! PLUS – to help us get up and running, for a limited time only, we have been offered an additional incentive! Between now and 13th May, Easyfundraising will give us a £1 free donation for every new supporter who signs up, so now is the ideal time to do it. Register [here](#) today.



Revised and updated Chris Baines book

Out this spring, the *RHS Companion to Wildlife Gardening* is fully revised and updated by the author, freshly illustrated and bursting with new ideas and projects. Chris Baines – patron of the WLGf – has championed wildlife gardening for more than 40 years and this book is often quoted as the 'wildlife gardener's bible'.

- [Order your copy here](#)

Patron's Patter

Welcome to our new section of the newsletter, where each issue we'll feature a piece written by one of our esteemed Forum Patrons, in which they share their thoughts on wildlife gardening.



Pippa Greenwood trained as a botanist at Durham University and then gained an MSc in Crop Protection at Reading University. In 2007 Pippa was awarded an honorary Doctorate of Science (DSc) by The University of Durham for her work in gardening and its science. In 1985 she joined the staff of The Royal Horticultural Society's Garden at Wisley in Surrey, where she ran the Plant Pathology Department, answering several thousand queries from gardeners every year. In 1988 Pippa began working for the BBC, joining Alan Titchmarsh for the gardening slot on BBC 1's Daytime Live. From 1989-2002 she was a regular presenter on BBC2's Gardeners' World, presenting many items on garden pests and diseases, science and gardening, and creating and running her organic kitchen garden from her own Hampshire garden. For 30 years Pippa has been a regular panellist on BBC Radio 4's Gardeners' Question Time, and for eighteen years Pippa was the gardening columnist for The Mirror newspaper. Pippa has her own website, www.pippagreenwood.com, where she blogs and from which she's launched 'Grow Your Own with Pippa Greenwood' and offers 'AskPippa', a garden advice service. Pippa has written many books and she lectures, hosts gardening tours and gives gardening-related demonstrations all over the UK and abroad.

I was one of the lucky ones. I might have been born in London but we had a decent-sized garden with a fairly wild access lane around the back of the houses. Sadly there seems to be nothing much that can be done to stop developers developing these vital and heart-lifting 'wilder' areas. I hear this magical place is now threatened. I had both the garden and the 'lane' when I was a child and even more importantly, I had an extraordinary mother. A truly wonderful woman, a zoologist turned palaeontologist who had been pushed into giving up what I suspect would have been a spectacular career, to turn housewife and mother. She was the best person I could have had in my life and someone who worried about and actioned so many of the environmental problems we're now constantly hearing about as if they're 'new' news. She was 'ahead of the curve' in so many ways, and it was she who was my initial lure into the garden; not just the plants called me, but the person most dear to me. Why wouldn't you want to be in the garden if she was there?

Once lured though, I gained so much more. Much more than any lessons at school or even from books. I was shown and taught to love and respect everything in the garden, to encourage wildlife in all its forms. Those were the days when hedgehogs were abundant, but still somehow a definite frisson of excitement was felt whenever we spotted one in the evening. They were there in huge numbers and I still recall vividly the day we went on a family rescue mission. One of my sisters had been playing tennis at the courts close to our house and came back saying there was a hedgehog caught in the net. A family outing to beat any trip to a theme park followed immediately. Armed with the sharpest scissors, sturdy gardening gloves and a box, we sneaked down into the court, cut the hedgehog out, leaving a sizeable hole in the rather smart tennis net. Eventually untangled and freed she was given a bed for the night. She must have been close to dying – I remember watching fascinated as the teams of parasites of various sorts fled her little, slightly limp body. But she, now named Selina (why?!), survived and spent a few days recuperating in the garden with a metal box as a house inside a guinea pig run. But it wasn't just Selina who stays in my mind, or the ticks, mites and insects I learned to identify that first evening – wildlife and plants filled my childhood and moved with me into adulthood....and have now spread seamlessly into my two kids. Being that person who introduces the next generation to wildlife, nurturing that love and respect is a gift any one of us can give. You don't have to have your own children; any children or young adults will do – those of friends, relatives and neighbours. Spread the word and make someone small as lucky as me!

Pippa Greenwood, April 2023

Forum noticeboard

New podcast website



Garden Media Guild Award nominees Ellie and Ben Mitchell have a new website where you can download and listen to their excellent Wildlife Garden Podcast. The latest episode is an interview with Dr Abigail Lowe, Community Science Officer at the Natural History Museum and expert on plants and pollinators. Visit [here](#).

Visit an urban wildlife garden for charity



A date for your diaries – Gareth Sinclair’s London wildlife garden is open for the National Garden Scheme on June 18th from 12pm. 118b Avenue Road in Acton is only three years old but has a meadow, an orchard, two ponds and 40 trees and is a magnet for wildlife, showing what can be done in an urban setting. Visit www.ngs.org.uk or email LondonWildlifegarden@yahoo.com for more details.

Save the date!



Several gardening clubs in Suffolk, Essex and Cambridgeshire are jointly organising a ‘Gardening and Climate Change’ event at West Wickham village hall, south Cambridgeshire, CB21 4ES, on August 12th 2023. Increasing garden biodiversity is a strong theme of the day, along with how we can adapt and mitigate the effects of climate change. There will be speakers, plant sales, advice, demonstrations, refreshments and more. Admission is free, so if any Forum members are in the area, do go along. Contact email: sueboase@hotmail.co.uk

Call for notices



If any readers have any wildlife gardening events, advertisements or news you’d like to publicise in this newsletter here on the forum noticeboard, then do please send details over to info@wlgf.org and they’ll be included in the next issue.



Making the headlines

Forum Facebook member discovers fungus new to the UK

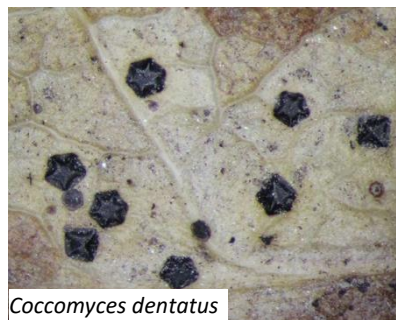
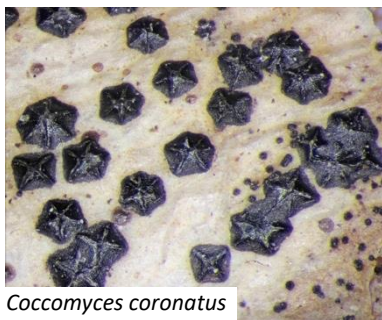
In 2022, members of the Wildlife Gardening Forum's Facebook group found unusual, triangular black features on dead leaves of a bay laurel bush in a garden. After an initial tentative ID from Forum Trustee Johan Ingles-le Nobel, Michael Salter and Bernadette McGhie went on to find out if this was in fact



Coccoomyces delta, a species named after its usually triangular fruiting bodies. Yet, none of the public databases for biological records included any mention of *Coccoomyces delta* in the UK. The RHS Plant Health team were approached to see if they could identify the fungus. Normally the team only deal with fungi growing on living plants (and usually causing damage), but they offered to make an exception.

Coccoomyces is a genus of microfungi adapted to growing on dead leaves. They perform part of the early decomposition process. Typically, they whiten the area of leaf they infect and produce black lines whenever they meet another fungus as they spread through the leaf. Some species produce tiny fruiting bodies that release asexually produced spores (copies of a single parent). These can be seen on infected leaf areas as tiny black dots within the upper surface of the leaf. But the most distinctive feature of *Coccoomyces* species are their fruit bodies, which produce spores following a sexual mating of two individuals. These fruit bodies are larger (up to 0.5-1.0 mm) and

polygonal. They're often a shiny black and protrude slightly from the upper leaf surface. In some species there are radiating ridges, which indicate where the fruit body will split open to release its spores.



Two *Coccoomyces* species are commonly found on dead leaves of oak and sweet chestnut: *Coccoomyces coronatus* and *Coccoomyces dentatus*. Both of these have fruiting bodies with four to six sides, but three-sided fruiting bodies can occur. So, shape alone is not enough to confirm *Coccoomyces delta*, although having the vast

majority of the fruit bodies with three sides does point towards this species. When examined under the microscope, sections through the fruiting bodies examined at the RHS showed there were no mature spores present, making identification difficult. However, the tissue layer that the spores would later form in was extremely tall – too tall to be any species except *Coccoomyces delta*. For a fungus already known in the country, this would have been enough evidence for an identification but not for a first record. Luckily, a second sample was found a few months later on the Isle of Wight and sent to a mycologist at Kew for examination. This had mature spores. Both specimens have therefore been accepted as *Coccoomyces delta*, with the Wildlife Gardening Forum members' leaf being considered to be the first find in the UK. Both specimens are now deposited in the fungarium at Kew. It just goes to show how important biodiversity is in our gardens and how likely it is that many more species remain as yet undetected in our small patches of the UK.

Dr Fay Newbery, RHS Plant Pathologist

One giant National Education Nature Park to be created

Learning Through Landscapes, a leading UK-based charity dedicated to enhancing outdoor learning and play for children, along with the Natural History Museum, the RHS and others, will be working with the education sector to help them survey, manage and enhance their school grounds and outdoor spaces, creating one vast National Education Nature Park. It's intended that it will engage children and young people with nature, supporting schools in England to survey biodiversity in their school grounds and, critically, to take action to protect and enhance it.

The project will create an online hub where teachers can access a wealth of curated, quality-assured information and teaching resources. From creating pollinator-friendly habitats where biodiversity can thrive to creating planting schemes that support climate resilience, the National Education Nature Park will also provide opportunities for young people to take part in community science, identifying local impacts of climate change and biodiversity loss and developing key skills to solve these problems.

- The launch date of this project will be May 18th 2023.

Everyone to live 'within 15 minutes of green space or water'



In late January the UK Government announced a 'major environmental improvement plan', which at first sight sounds like good news. It includes commitment to half a million hectares of habitat improvement (about 2% of the country's area), new nature reserves and woodland and tackling some species decline. From our perspective the most remarkable statistic is that every household will be within a 15-minute walk of green space or water. The inevitable big 'but' is that there's [no indication as to how all this will be funded](#). The charity Fields in Trust, for example, estimated 2.8m people in Great Britain live [more than ten minutes](#) from a park. At the

same time the government is proposing to abolish 1,781 environmental laws inherited from our EU membership, and its own watchdog revealed that it's [failing](#) on all 23 of its 2018 environmental targets. Richard Benwell, head of Wildlife and Countryside Link (of which the Forum is a member) stated, *"to halt the decline of nature, the days of fluffy wish lists and back-of-the-settee funding for nature policy must end. The environmental improvement plan needs scientifically sound delivery plans to stop the decline in wildlife, backed by the funding to make it happen."*

Major award for wildlife gardening TV programme

Jan with Roy Lancaster and Gardener's World presenters receiving the award



On 25th November 2022, the BBC received a national Garden Media Guild award for its Gardener's World wildlife gardening special. Jan Miller-Klein, Forum advisor, was one of a team who helped make the programme, which was based in her garden and fields (episode 25, still available on BBC iPlayer). This was the culmination of 35 years hard work trying to bring awareness of what is now of huge public interest – gardening for wildlife. As Jan says, "after years of thousands of people like us banging on about it, the winner of the best in show at the

Chelsea Flower Show was a wildlife garden – complete with beaver dam! It's important because it's a huge change from the crackpot label people like me had in the 1960s, 70s and 80s. It's changing the way governments act and how they fund biodiversity conservation around the world." Jan bought her eight-acre plot in Wales in 1986 and, despite setbacks, has tirelessly campaigned to gain more media attention to the plight of our garden biodiversity. She has written many books and articles on the matter and says, "if you'd like more information about contacts, societies, how to publish and advertise your own books or pamphlets and articles, please do contact me on jan@7wells.org."

Wildlife gardening research

Moss and herbivore responses to artificial light



The more research is done on urban artificial light at night (ALAN), the more impacts on wildlife we're finding, including from two recent publications. A [study on the Indian moss, *Semibarbula orientalis*](#), has shown that continuous illumination under streetlights profoundly affects this moss and its relation to other mosses in the local community. Artificial light raised the activity of several physiological processes, which in turn reduced chlorophyll levels, photosynthesis and growth rates. In continuously illuminated areas, the coverage of *S. orientalis* was reduced by 75% and its biomass by 64% compared with natural conditions. As a result, the continuously lit sites showed much reduced moss species richness, although the communities were more even in species abundance and less dominated by *S. orientalis*.

A second study from the Netherlands [looked at the impacts](#) of white, green or red light on forest edge wildlife over a six-month study. This measured plant growth characteristics, herbivore impact and gall formation by sap-feeding insects. The results were complicated. In the case of oak, ALAN of different colours upset the relationship between herbivory and plant traits, such as growth rate and leaf thickness. In the dark control and with white light, insect damage reduced with greater growth rates, while in green and especially red light, herbivore damage increased. With leaf thickness, white and

red light increased damage for thin leaves. For oaks in conifer forests, red light greatly increased leaf damage overall compared with oaks in broadleaf forest. Under control darkness deciduous forest oaks showed less gall formation than in conifer forest, but all light treatments greatly increased the numbers of leaves with galls. Similar studies on blueberries showed no impact of ALAN at all despite blueberry leaves being considered more palatable to insects than oak. This was quite a limited experiment but does show that the impacts of artificial light can be subtle and complicated by quirky plant and insect responses. More studies, ideally involving more species, would be necessary, but it would be sensible for wildlife gardeners to minimise ALAN in their own gardens.

Transfer films do help birds avoid windows, but only if they're on the outside



Estimates suggest that globally, more than a billion birds are killed every year by flying into windows, which they can't see as an obstacle. Patterned, stick-on transfers are on sale to help birds see and avoid the glass.

A [neat American study](#) used zebra finches to test their efficiency. Of the two types of transfer tested, one model, which is visible in the ultraviolet range, did reduce impact by 47%, but only when applied on the *outside* of the window.

Helping soils recover on building sites

Anyone taking on a garden in a new development knows how awful the soil can be, full of bits of rubble and usually very compacted. How can such soil best be rehabilitated? A useful [American study](#) has some pointers. The team looked at conditions in what they described as ‘part of a sprawling retirement



community located on the outskirts of Ocala in central Florida, USA’. New garden areas were treated in three ways – with tillage to 15cm to reduce compaction, tillage plus incorporation of the equivalent of 3cm of compost and a control with no soil enhancement at all. The compost was made in a process that incorporated fungi and bacteria that would help decomposition processes while inhibiting soil nematodes. The gardens were surveyed for invertebrates and the rate of plant litter decomposition. Insect-killing nematode activity was also measured.

There were no significant differences between the treatments in the first six months, but by the following year all the gardens showed significantly more invertebrate diversity, and this was most marked in the compost enhanced soils, followed by the tillage-only gardens. The rate of plant material decomposition increased with time but didn’t differ between treatments. Insect-killing nematode activity was present in all treatments but lowest in the compost enhanced soils.

Clearly, tillage and adding compost did enhance biodiversity somewhat, but time since disturbance seemed the biggest factor. There’s also the issue of the cost of adding compost, which in this study was remarkably low at about 0.35US\$ per square metre. The message for gardeners is probably to till and enhance your flower and vegetable beds but let the lawn soils develop naturally.

Domestic gardens improve beetle abundance in nearby cemeteries

Cemeteries can be among the most wildlife-friendly places in many cities, and the old and overgrown ones seem islands of biodiversity.



An interesting study of 20 cemeteries west of London has come up with some slightly unexpected results. The team from Reading University looked at [flying beetle numbers](#) in relation to how heavily the sites were managed and the nature of the land use surrounding them. Sampling flying beetles using light traps was considered less intrusive than digging holes for pitfall traps, which are normally used in studying beetles. Results showed there were *fewer* beetles in the larger cemeteries, and that older cemeteries were *not* more biodiverse than younger ones – both counter

to expectations. Sites in towns with larger populations were slightly – but not significantly – less diverse than in smaller towns. Cemeteries surrounded by domestic gardens and hedges had significantly more abundant flying beetle populations. Another expectation was that minimally managed sites would be more diverse than heavily managed sites. The most heavily managed cemeteries had, as expected, the least abundance of beetles, but the intermediate and more conservation managed categories didn’t differ significantly. Overall, the presence of domestic gardens nearby – and a more horticultural form of cemetery management had the greatest positive impact on beetle numbers.

No-Mow May isn't long enough!

Plantlife's No-Mow May campaign has done a marvellous job in making people aware of the benefits of reducing the intensity of their lawn management. It is, however, unclear whether just holding back until June is really long enough. An [important study](#) by a team from Cirencester Agricultural University has revealed that it isn't. They looked at the nectar resource of 30 plots, mown and unmown, on amenity grassland from late April through July. The no-mow plots yielded significantly more nectar, but differences weren't apparent until mid to late May, when a three-fold difference was found. By mid-June this had risen to eight times more nectar before differences declined from late June to early July. Ironically, the top sugar yield was from common ragwort, creating a further peak for no-mow sites in mid-July. So, as we suspected, start no-mow in May, but carry on until at least mid-June for the maximum benefits. And – perhaps – [tolerate ragwort](#) in your garden!



Planting more city trees would counter dangerous heat-island effects



It's not often ecologists quote medical papers from The Lancet, but this international study is potentially a crucial tool in persuading city planners to plant more trees. The team looked at [summer heat-island effects](#) for adults in 93 European cities during June 2015, concluding about 6,700 premature deaths were caused by 1.5°C overheating. The weather in 2015 was considered average, without a heatwave. They went on to

estimate that increasing tree cover in the cities by 30% would provide cooling of about 0.4°C, resulting in 2,644 fewer premature deaths, or 1.84% of all summer deaths.

If this is the case for a typical early 21st century year, with climate change the impact will be far greater in the future, so greening up cities to reduce the heat-island effect is vital. It hasn't escaped our notice that private gardens will have a major beneficial effect in this way.

Dead-wood beetles prefer what they're used to

[Eurasian spruce bark beetle](#)



We now know that native plants aren't the only ones to help wildlife in gardens – or in the countryside for that matter, but the detailed needs of groups other than pollinators still needs more work. A new [Swedish study](#) has shown that non-native trees are less beneficial for some wood-eating beetle larvae. The study looked at species living in 300 logs of Norway spruce and Scots pine, which are native to Sweden, and lodgepole pine, Douglas fir, Sitka spruce and Japanese larch, which are non-native there. They found 113 beetle species,

mostly bark, wood and fungi eaters. The native tree logs held on average more than 12 species each while the non-natives harboured between 7.1 and 10.7 on average, so the differences weren't massive. Interestingly, lodgepole pine, which is closely related to native Scots pine, had the highest non-native beetle diversity, which matches the results from other studies that show that compared with native plants, closely related non-natives are better for insects than unrelated exotics.

Birdsong and traffic noise

People walking in urban parks can hear restful birdsong, but also the less attractive sounds of traffic. Exposure to natural stimuli is good for our health, while exposure to heavy human noise is bad for us. So, how do people perceive the mix in parks? An [Australian group](#) set out to assess this with a survey of



4,000 people across much of the country. Participants were questioned on how they used the parks, their feelings about bird and traffic sounds, and their socioeconomic background. Unsurprisingly, nearly all participants were positive about birdsong and negative about traffic noise. People with strong nature awareness were very positive about birdsong and very negative about traffic noise, while people who used parks socially still valued birdsong but were less concerned about traffic noise. People from socially disadvantaged backgrounds particularly disliked traffic sounds. It's good to know that all

visitors benefited from parks, but if traffic noise could be reduced they'd be of more therapeutic benefit, especially to disadvantaged people. People lucky enough to have their own gardens have less need of parks, reinforcing the need for parks to be better designed for more disadvantaged people. An international group of academic architects are now arguing for a multi-species approach to architecture.

Teach architects ecology!

Today [56% of the world's people](#) live in cities and by 2050, nearly 70% will do so. From our own point of view, as well as that of the planet, creating sustainable, resilient and liveable cities means architecture needs to be recruited for the support of biodiversity. Currently, architects are concerned with providing for human needs alone, often at the expense of wildlife and the environment in general.

A very [interesting paper](#) by an international team headed from Germany proposes a new paradigm. The aim is to create a multi-species habitat as a multi-criteria-designed building framework that takes into account the needs of diverse organisms. There's no current model for how this can be done – ecologists and architects seem to inhabit different worlds, and most impact of ecologists on the built environment is either retrofitting or small-scale additions such as nesting bricks. A good starting point would be to arrange neighbourhoods better to create linkages between gardens and other green areas. The main requirement is to develop a much deeper understanding of how wildlife uses all parts of a cityscape and then communicate this to the people who fund development, plan cities and design buildings.

Inadequate pollination leads to production loss and human mortality



While much of our food such as wheat, rice, corn, potatoes and animal products doesn't depend on insect pollination, a lot of our food such as fruit and vegetables does. A new modelling study by [an international team](#) has looked through the lens of climate zonation at the losses globally from inadequate pollination. They calculated that about 3-5% of fruit, vegetable and nut production is lost annually to poor pollination by insects, leading onto an estimate of 427,000

excess deaths globally each year from lost food consumption and associated diseases. Low-income countries lost significant income and crop yields while wealthier countries experienced food consumption impacts and greater disease. They conclude that there's an urgent health and economic need to promote better pollinator-friendly practices, especially in the light of disturbing data on pollinator declines and insect population drops generally.

Is green space near your home good for you?

There have been many studies that suggest that exposure to the natural environment is beneficial to human health, but evidence is inconsistent. A [recently reported study](#) from Finland examined whether exposure to green spaces and blue spaces (i.e. open water such as lakes and rivers) in urban environments was associated with mental and physical health. In particular, the researchers attempted to test whether there was an association between the presence of natural environments within a 1km radius of study subjects' homes and their use of various medications.

The results suggested that frequent visits to local green space, but not the amounts of green or blue spaces, nor the existence of green and blue views from home, were associated with less frequent use of psychotropic, antihypertensive and asthma medication in urban environments. In short, green space near you is good for your health, but only if you walk in it.

Butterflies observed 'nectar robbing'

So-called 'nectar robbing' is a well-known phenomenon. It generally involves larger kinds of bees such as bumblebees making holes at the back of tubular or trumpet-shaped flowers (such as antirrhinum, fuchsia and honeysuckle) in order to get quick access to the nectar secreted inside the flower at the base of the tube. You may well have noticed this phenomenon in your own garden if you grow these types of flowers. Only larger bee species are robust enough to make such holes. Sometimes other smaller bee species, or various other types of nectar-consuming insects, will use these holes later to gain



access to the nectar. There are very few recorded observations of Lepidoptera (butterflies and moths) making use of such holes, however.

A recently published [report](#) tells how two entomologists who were out hiking in the mountains of California happened upon a patch of a scarlet-flowered penstemon whose flowers were attracting a wide range of insect visitors. Closer inspection revealed that many of these insects were nectar robbing, using holes or slits that had been bitten in the corolla tubes of the penstemon flowers. Interestingly, the authors noted that four species of butterflies were regularly visiting the flowers of the penstemon patch

and were nectar robbing. Intrigued by this observation, the authors did further research later by searching for photographic records available online of the four butterfly species feeding from penstemon flowers. They found evidence of 28 such feeding events, in which butterflies feeding were overall three times more likely to be feeding by nectar robbing than using the flower 'legitimately' by entering the front of it. Their result contradicts generally held assumptions that Lepidoptera rarely engage in nectar robbing and is an incentive to all of us to pay close attention to tubular flowers in our gardens or when out walking, looking out for instances of Lepidoptera engaging in this activity.

This clever piece of work shows that there's still much to learn about the world of insects and flowers and even chance observations can lead to new insights. It also demonstrates the cumulative value of submitting photographic records to online wildlife recording schemes; something we can all take part in, even from our own gardens, using online recording schemes such as [i-Record](#). Data we submit could be of great value to future researchers.

The records used by the researchers for this piece of work were accessed at the [Global Biodiversity Information Facility](#), an international network and data infrastructure aimed at providing anyone, anywhere, open access to data about all types of life on earth.

Citizen science

'Bee the change'

The [Bumblebee Conservation Trust](#) is calling on the UK public to play their part and help create nesting sites wherever they live. Bumblebee queens emerge from hibernation in spring and start searching for safe, sheltered spots where they can raise their offspring. Sadly, good nest sites and flowers are in much shorter supply than they used to be, due to large-scale changes to the UK landscape. The good news is many outdoor spaces can provide struggling bumblebee queens with the homes they need, even in urban areas.

The Bumblebee Conservation Trust has created a new [animation](#) highlighting three simple ways to



create nest sites for different bumblebee species that nest underground, overground or up high on trees and walls. Potential nest sites for bumblebee queens involve simple changes to outdoor spaces: for example, letting a patch of grass grow long and tangled, putting up a bird box with some nesting material inside or being a bit less tidy as queens will search for abandoned mouseholes in wilder, undisturbed corners.

Bumblebee decline is a big problem because they're key pollinators of wildflowers and many of the fruit and vegetables we eat, making them essential for both biodiversity and our food security. Bumblebees are generally only interested in finding flowers, and nests only last a few months over spring and summer before dying off naturally by mid-autumn.

The [new animation](#) is part of the Bumblebee Conservation Trust's Bee the Change online campaign, which offers over 40 free resources full of quick, simple ways for anyone to help bumblebees wherever they live. Chloe Headdon from the Bumblebee Conservation Trust said, "planting bee-friendly flowers is a fantastic way to support your local bumblebees, but many people don't know these wild pollinators aren't just hungry – they're also searching for a home. This spring we call play a part in helping bumblebee queens find somewhere to nest."



And finally...

Don't trust your smartphone app!



There are lots of apps available for smartphones to identify birds, for users to share images and seek identifications from other users with some attempt to provide a direct answer – especially for birdsong and plants. A team from Galway and Leeds decided to check out how good and reliable the [plant ID apps currently are](#). They submitted photos taken in the field of 38 Irish plant species to 6 apps (Google Lens, iNaturalist, Leaf Snap, Pl@ntNet, Plant Snap, Seek) and evaluated their success. All apps showed inconsistencies and were better able to identify flowers than leaves. The specialist Pl@ntNet and

Leaf Snap were the best, with the former scoring 88% correct on flowers and 80% on leaves, with Leaf Snap at 84% and 77% respectively. The others were mostly well below 50%, with iNaturalist scoring a miserable 3.6% and 6.8% only. No doubt app performance will improve, but right now it would be foolish to rely on them – especially where potentially poisonous plants are concerned!

The newsletter is sent to all the members of the WLGf; you're welcome to forward it to friends or colleagues. Do encourage them to join the Forum (it's free!) by visiting www.wlgf.org and filling in the simple form.

The Wildlife Gardening Forum is a consortium of the UK's leading wildlife, conservation, gardening and horticultural organisations, from both the private and the public sectors. We now have over 2,600 members. Formed in 2005, our core aim is to help gardeners and decision-makers understand just how important our gardens are for wildlife.

Newsletter compiled by Karen Murphy, with Helen Bostock, Fay Newbery, Jan Miller-Klein, Pippa Greenwood, Marc Carlton, Steve Head and Ken Thompson. Images from Pixabay and Wikicommons unless stated otherwise.

