



WILDLIFE GARDENING FORUM

E-newsletter: May 2020

www.wlgf.org

@WLGForum



Headlines

Forum conferences and Wildlife Gardeners' Days

Covid 19 has turned all our lives upside down, and it looks like this will continue for a very long time, at least for those of us with age-related or other vulnerabilities. The Wildlife Gardening Forum has no paid staff or rented premises, so we are far less affected as an organisation than almost all other charities.

We were sorry to have to cancel/postpone the spring 2020 Wildlife Gardeners' Days at the London Wetland Centre and the Welsh National Botanic Garden, but we are still optimistically working on a conference in November 2020 in London. This will be a meeting to update you on the latest wildlife gardening news. This will include scientific studies, new projects and campaigns, all with a focus on sustainability. Please contact us if you would like to give a talk.

Excellent news from London's Natural History Museum garden

Garden looks set for an extension instead of the previously planned obliteration. More [here](#).

Forum Facebook presence continues to grow

Our Facebook public group passes the 15,000 milestone, and our Facebook group now has nearly 4000 followers. More [here](#).

Page Contents

- 2 [Forum news](#)
- 3 [Wildlife gardening research](#)
- 6 [Wildlife gardening policy](#)
- 7 [Wildlife gardening resources](#)
- 8 [Garden wildlife](#)
- 9 [Wildlife gardening and citizen science](#)
- 11 [Wildlife gardening and health](#)
- 12 [And finally...](#)



You are receiving this newsletter because you are a member of the Wildlife Gardening Forum. If you would like to be removed from our membership list and cease receiving this newsletter, please email members@wlgf.org.

Forum news

Home gardening gets a boost in the time of Covid 19

People in lockdown during the current coronavirus outbreak have been turning to gardening, nature and wildlife as reassurance in uncertain times. With help from good weather and the onset of spring, the soothing virtues of the outdoors have been recognised as a way to boost the wellbeing and mental health of those in isolation. Wildlife-watching and growing plants have fast become a favourite way to enjoy time at home, with some even using their plots as open-air classrooms for home-schooled children.

Seed and plant sales online have skyrocketed (up 94% according to Barclaycard), many are growing their own vegetables, while social media has lit up with nature-themed activity. The RSPB brings nature to newsfeeds every weekday morning between 8am and 9am with the hashtag #BreakfastBirdwatch, inviting Twitter and Facebook users to share garden sightings of birds, while Chris Packham broadcasts a nature programme each morning via his new Twitter page the Self-Isolating Bird Club (@SIBirdClub). The National Garden Scheme is offering virtual garden visits, while the RHS is staging virtual flower shows.

Good news from the Natural History Museum

Many of you will remember the upset caused by the London Natural History Museum's initial grounds development plans, which would have comprehensively ruined their richly biodiverse Wildlife Garden. Despite getting planning permission from the local council, they have now abandoned these plans and had a massive rethink. The new plans can be seen at their [Urban Nature Project](#) page, and are excellent!

The east section retains the commendable goal of illustrating our geological past, while the west section, including the extended Wildlife Garden, concentrates on present urban biodiversity in Britain – and options for a more sustainable future. It will also be at the centre of a national roll-out of citizen science and education work on the biodiversity of the urban areas where most people live. We hope the Wildlife Gardening Forum will be able to work with them, especially in helping inform their design for a simple domestic garden managed for wildlife to inspire visiting families.



Artist's impression of the proposed new garden

More pages added to the Forum website

Our webmaster (Steve Head) is continuing to create and post new [Wildlife Gardening Forum web pages](#) covering the invertebrates.

By the time this newsletter hits your inbox, there will be seven new pages on the arachnids, and one on the nearly-insect groups of the springtails, protura and diplura. If you don't know much about pseudoscorpions, mites and spiders, these pages will be an eye-opener.

The next groups will be the centipedes and millipedes, assuming Steve can detach himself from his garden.



Wasp spider *Argiope bruennichi* (Steve Head)

New Facebook page for the Forum

Our Trustee, Johan Ingles-le Nobel, has created a [Facebook page](#) to complement the [Facebook public group](#). The former is where we post things as a charity while the latter allows members of the public to post. The Facebook page already has almost 4000 followers, while the Facebook public group has now soared through the 15,000 members mark.

Our thanks to Johan and the rest of the volunteer team for all their work to keep these engaging forces for good.

Congratulations, too, to Johan who won the Large Garden category in Surrey Wildlife Trust's Wildlife Garden Awards. And he is not stopping there – future plans include building a major kingfisher *Alcedo atthis* nesting bank.

Wildlife gardening research

Insect biomass and diversity declines

Concern over the loss of insect diversity and biomass is, at last, becoming infectious, including this excellent [article](#) in The Guardian. The consequences of climate change and urbanisation are the subject of two recent reports/papers.

Bumblebees, which are adapted to cool climates and hence higher altitudes and latitudes than other bees, are vulnerable to climate change. In a [paper](#) in *Science* surveying the response of bumblebee species to climate change in North America and Europe, researchers found that over 25 years, the likelihood of a bumblebee population surviving has plummeted by nearly a third.

The paper's predictions are for more dramatic declines in European bumblebees: their map shows the greatest changes for south-west Europe and the eastern Alps, hotspots for bumblebee diversity.

It is complicated, however, as species loss is also a response to our other impacts, for example on habitats through land use change and through pesticide use. So, studies on the impact of urbanisation on pollinators are also important. Research undertaken in Germany, published in [Nature Communications](#), used an experimental design studying paired urban and rural flower-rich sites for nine German cities. The research also used red clover *Trifolium pratense* plants as 'pollinometers' to quantify the relative effectiveness of different insect orders and to compare pollination rates between the rural and urban sites. Overall insect biomass and diversity is higher in rural areas, but the results show pollination rates are higher in cities.

They also confirm what many of us have experienced: that *Diptera* (flies, with the exception of *Syrphid* hoverflies) and *Lepidoptera* (butterflies and moths) have lower biomass and species richness in cities, whereas *Hymenoptera* (bees, ants, wasps), especially bees, have higher species richness and flower visitation rates in cities. Higher habitat diversity in both urban and rural sites increases species richness in all groups.

They also discuss the various ecological drivers in both settings and land management practices that influence different insect groups. They recommend promotion of edge habitats for the conservation of insect diversity and note the importance of bumblebee pollination for urban food growing.

Jackdaws can learn from each other to identify "dangerous" humans



[Recent research](#) has shown that Jackdaws learn from each other which humans they perceive as a threat. It was [already known](#) that the birds can recognise individual people and will respond differently to those they see as a threat.

In the new study, by researchers from the University of Exeter, a person unknown to the jackdaws approached their nest, and scientists played a recording of either a warning call or "contact calls" (suggesting no threat). The next time the jackdaws saw this person, the birds that had heard the warning call reacted defensively by returning more quickly to their nests.

In a [second study](#), researchers from the same university found that jackdaws were more likely to join a mob to drive off predators if lots of their fellow birds were willing to join in. The study found that when more birds call out to show they are willing to mob a predator, more jackdaws will join the mobbing party. The researchers conclude that this suggests jackdaws use a form of counting when deciding whether to join a mob.

Hedgehogs and roads

Nottingham Trent University has started work with the People's Trust for Endangered Species to assess the [impact of traffic](#) on hedgehog populations. Hedgehog numbers have [steeply declined](#) in recent years from a variety of causes, and fatal traffic accidents are certainly one of these, thought to kill 100,000 annually. We don't see so many squashed hedgehogs nowadays, but that is because they are so scarce, not that they have become traffic-savvy.

The study will track mortality at 12 roadside sites, half of which include tunnels allowing animals to cross safely. Part of the study will check how effective these tunnels are, as well as accurately estimating mortality rates in the populations, and which animals (young/old; male/female) seem most at risk.

City pollinator flower strips give rapid relief

As one way to offset losses of traditional meadows for foraging pollinators, many towns and cities have introduced patches or strips of flowering plants. These look attractive and are evidence that the authorities are trying to help, but do they work?

Researchers at [Munich University](#) studied bee activity over nine newly established 1000m² strips of regionally appropriate species, and compared bee activity on them with existing data on abundance of local bee populations.

Within just one season, nearly a third of the local bee species had discovered and foraged on the plots. The less-threatened bee species were over-represented in the results – so the strips seem not to have helped rare species so much. However, rather surprisingly, it was not just the generalist (polylectic) feeders that were using them, as there were plenty of the fussier oligolectic species that only favour certain types of flower.

Clearly these strips were rapidly effective and proved to support as many bee species as in well-established protected sites like the Munich Botanical Garden. The evidence suggests that planting pollinator strips should be much more widely promoted.



Wildlife gardening policy

Allotments: the bad news

Animal and Plant Science researchers at [Sheffield University](#) have analysed historic map data from ten urban areas in the UK, and shown that the area of land managed as allotments has fallen by 65% since its post-war peak, while the per capita area available declined by 62%. Worryingly, the decline in areas at risk of food shortages was eight times more than in wealthier areas, so it represents another form of social inequality.

In 2018 it was [estimated](#) that there are 90,000 people queuing for an allotment in Britain, with waiting lists up to 40 years. The good news is that not all the lost allotment land is compromised for ever. While half the land is now built-up, a quarter is still green space, and could be brought back into allotment use. If these sites were restored, there would be enough space for all people currently wanting allotment spaces.



How much food could a city produce?

In a Sheffield University study, researchers looked into just [how much food](#) could be grown in the city. They found, 45% of land was green space and 38% of the green space was gardens, all of which *could* be converted for food production. They reckoned another 15% of the city – road verges and parks - could also be used for growing food.

Putting all this together would create 98m² of growing space per person in Sheffield, more than four times the per capita area given over to food production nationally, and feed more than the city's population. Of course, this would be at the expense of space for other forms of recreation (except digging) and for wildlife that uses greenspace other than allotments.

In [1944, allotments and gardens](#) in the United Kingdom produced 10% of all the country's food, including half our fruit and vegetable requirements. In times of national emergency, this can be achieved, but is this realistic or plausible in the future? Another approach suggested by the Sheffield team would be using flat roof space for hydroponic cultivation of tomatoes. If 75% of flat roof space were used, it could supply 12% of the city's needs.

Honeybees vs wild bees

The Bumblebee Conservation Trust (BBCT) has issued a carefully written [position statement](#) about the potential impact of domestic beekeeping on wild bee populations. There is the possibility that managed honeybees *Apis mellifera* could harm wild bee species by competition for forage and introducing disease. There is evidence that abundant honeybees can make wild species shift from their favoured flowers to less abundant or less rewarding species. Two diseases of honeybees, Deformed Wing Virus and the fungal pathogen *Nosema* are now being recorded on bumblebees.

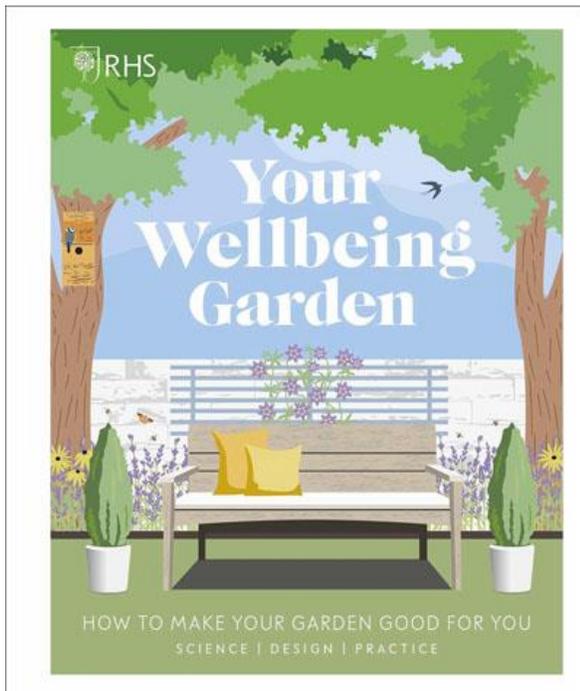


The BBCT recognises the many benefits of beekeeping and suggests some precautionary actions while the seriousness of any impact is uncertain. In particular, planting for pollinators should include a range of flowers of different structural types to suit different wild bees and hence avoid honeybees excluding others when only a small range of flowers is grown. Where resources have been created specifically to help wild bees, it would be sensible to avoid placing hives in those areas.

Wildlife gardening resources

Book review: *Your Wellbeing Garden*

By Alastair Griffiths, Matt Keightley, Annie Gatti and Zia Allaway. RRP £16.99. RHS and Dorling Kindersley



This is an original and interesting book covering a remarkable range of benefits that gardens and gardening can bring you. Much is well based in up-to-date science – particularly the sections in ‘The Protective Garden’ and ‘The Sustainable Garden’, and it is good that the benefits of wildlife and birdsong are so clearly set out. ‘The Healing Garden’ quickly summarises the science evidence on health effects, but also brings in more speculative (but interesting) aspects such as scent and mindfulness. There are several sections by Matt Keightley on designing gardens for particular benefits, literature references and a list of Further Reading.

While on balance I would have preferred a more scientifically argued book, this one is probably a much better and more useful read for nearly everyone else!

Reviewed by Steve Head

Garden wildlife

Wren is the UK's commonest bird

Many gardeners, even in densely populated urban areas, are familiar with the loud song of the male wren *Troglodytes troglodytes* in spring and early summer, although this small bird tends to be secretive and prefers to stay within the cover of shrubs and hedges. In the [recent report](#) *Population estimates of birds in Great Britain and the United Kingdom* looking at the size of our bird populations, it tops the list with 11 million pairs across the UK.



The previous report in 2013 also had wren at the top of the list but with a population of just over 8.5 million pairs. Wren numbers are known to fluctuate according to environmental conditions and it may be that generally milder winters are benefitting this species.

The top five are made up of wren, robin *Erithacus rubecula* (7,350,000 pairs), house sparrow *Passer domesticus* (5,300,000), woodpigeon *Columba palumbus* (5,150,000) and chaffinch *Fringilla coelebs* and blackbird *Turdus merula* share the number five spot at 5,050,000 territories each. However, since the last report, seven years ago, the chaffinch breeding population has fallen by 1.15 million pairs - the drivers of which are unclear and need further investigation but could be disease-based.

Disease causes mass blue tit deaths in Germany



A mystery disease that has been savaging populations of blue tits *Cyanistes caeruleus* in Germany this spring has been [shown to be caused](#) by a bacterium *Suttonella ornithocola*, which causes pneumonia in affected birds. The disease is understood to be harmless to humans.

A staggering 13,800 cases had been reported by 21 April, surely just the tip of an iceberg of deaths. This bacterium was first described in 1996 in Britain, although there do not appear to have been any cases reported here this spring. However, be on the lookout for blue tits in

gardens that are fluffed up and listless. In Germany, there have been widespread calls for people to cease garden bird feeding while the epidemic is happening.

If you see any death or illness in garden birds, amphibians, reptiles or hedgehogs, visit the [Garden Wildlife Health](#) website.

How much of a threat are non-native flatworms?

The *Daily Mirror* gave us another great headline with its “Predatory worm with hundreds of eyes wreaks havoc on gardens after invading UK” article. The piece is about the obama flatworm *Obama nungara* from South America which was first recorded in Europe in 2008 and then in the UK in 2014.

What we do know is that the obama flatworm is predatory on invertebrates such as worms and it may now be established in the UK, but populations are probably very low at present. It certainly couldn't be said to be ‘wreaking havoc’, yet. However, the RHS describes it [here](#) as “extremely invasive, and it has been characterised as the most threatening flatworm species to the soil ecosystem and native soil organisms presently in Europe”.

New species discovered in NHM Wildlife Garden

The latest flora and fauna report from the London Natural History Museum's Wildlife Garden, published in the *London Naturalist*, details 23 new species added to the Wildlife Garden list. This takes the number of species so far recorded to 3,422.

One of the flies, *Sciapus pallens* is a relatively distinctive dolichopodid (or long-legged) fly. The other, *Cryptochetum iceryae*, is used as a biological control agent of cottony cushion scale (AKA fluted scale) *Icerya purchasi* in the Americas and Israel but has not been recorded in Europe before. More familiar wildlife recorded for the first time included willow emerald damselfly *Chalcolestes viridis* and firecrest *Regulus ignicapilla*.

In 2018 the Wildlife Garden won two awards in the Brighter Kensington and Chelsea Scheme – the Princess Alice Countess of Athlone Environmental Award and First Prize in the Educational Award.

Wildlife gardening and citizen science

Gardeners asked to help identify future invasive plants through national project.

The Botanical Society of Britain and Ireland (BSBI) and Coventry University have launched Plant Alert, a citizen science project to help prevent invasions of plants from gardens. The escape of ornamental plants is the main pathway for non-native plants that now outnumber native species in the British flora, with some of them having significant negative impacts on ecosystems, biodiversity and the built environment.

Gardeners are asked to report plants that are spreading and difficult to control as they can observe traits that contribute to successful invasions, such as vigorous growth and prolific self-seeding. Participants complete an online submission form through the Plant Alert website which feeds into the BSBI database (as a garden record) to be used for risk assessments and developing policy. To help wildlife both inside and outside of your garden, let Plant Alert know about the next potential plant invaders.

For more information and to submit records, visit www.plantalert.org. Follow the project on Twitter @Plant_Alert.

Results of 2020 RSPB Big Garden Birdwatch

In its 42nd year, the RSPB's [Big Garden Birdwatch](#) (BGBW) is the largest bird survey in the world, and gives a snapshot of how well the nation's winter garden birdlife is faring. It runs in the last weekend in January, with half a million volunteers counting the numbers of birds seen in a one-hour period.

The house sparrow *Passer domesticus* maintained its position as the most numerous bird recorded, with some signs of an uplift in numbers in recent years after the calamitous declines historically, while the greenfinch *Chloris chloris* (right) continues its sorry slide, now down to 19th position and seen in under one in seven gardens.



The survey continues to engage lots of new audiences and young people with observing wildlife, a stepping-stone to then going on to support nature conservation in other ways.

25th anniversary of the Garden BirdWatch Scheme and a free offer!

The British Trust for Ornithology (BTO) is celebrating [25 years](#) of its Garden BirdWatch scheme in which participants count bird species seen over one-hour samples on a weekly basis. Since its start, the project has received over eight million lists of birds and other wildlife from more than 50,000 British gardens. It has become one of our most important monitors of garden biodiversity.

Over the years some birds have maintained a fairly stable position in the ranking based on the percentage of gardens they are recorded in each year. Blue tit *Cyanistes caeruleus*, blackbird *Turdus merula* and robin *Erithacus rubecula* have stayed in the topmost ranks, whereas some like starling *Sturnus vulgaris*, house sparrow *Passer domesticus* and song thrush *Turdus philomelos* have declined significantly.

Others, such as wood pigeon *Columba palumbus* and goldfinch *Carduelis carduelis* have become very much more commonly seen, suggesting a change of behaviour and/or population changes. Big declines in numbers of greenfinch *Chloris chloris* seem to be due to feeder-spread disease, while people offering niger seed in feeders may have been the boost for the goldfinch.

Because of the costs of analysing the data returned, the BTO charges people to take part, but this charge is being waived for people joining during the Covid-19 lockdown.

BBC Springwatch's Gardenwatch findings

Last year the BBC in partnership with the British Trust for Ornithology (BTO) invited viewers to submit [data about their gardens](#). Nearly 120,000 people listed their garden features. Practically all had shrubs, bird feeders and flowers in pots and in beds. 45% had ponds, while 55% listed "wild areas". Since we would like people to understand that *all* their garden can benefit wildlife we wonder if people felt these areas were their "wildlife patch"? Less than a third had long grass areas, and only a quarter made compost. On the other hand, 35% had bug-hotels, which might be fun but are not always effective. Overall, these figures are useful and interesting, giving us at the WLGf some guidance as to what needs encouraging, or perhaps gently discouraging!

Other surveys covered worms, birds and mammals, with some interesting observations as to how birds used their time in the garden, with tits, house sparrow and finches spending much more time on feeders than on natural food sources. Cats, mice and grey squirrels were the commonest mammals seen.

Seasonal shifts revealed by Nature's Calendar

The spring 2019 [report](#) from the Woodland Trust outlining the results from their phenological survey showed that last year all but one of the events their participants record were early compared with the baseline year of 2001, and some considerably so. Frogspawn was, on average, 11 days early and tadpoles 14 days early.

It would be useful for the survey report to give participation levels, and perhaps the time has come for the results to use a multi-year average as the baseline for comparisons, such as 2001-10, in case 2001 was unusual in any way. The long-running nature of the survey is certainly to the Trust's credit.



Bat data shows how to limit new development impacts

By using a million records from the volunteer-led Norfolk Bat Survey, the BTO and the University of Turin were able to demonstrate the relative value of certain habitats for bats, and then work out what measures might minimise the impacts of new housing developments.

Reporting in [Biological Conservation](#), they found that lakes and discontinuous woodland areas were best for bats, but areas of housing were largely avoided. The conclusion was that, to help bats, new developments should include woodland planting, the creation of an area of bat-friendly habitat equal in size to the development itself, and for new developments to be built as an extension of existing habitation rather than as standalone new settlements.

Wildlife gardening and health

Green infrastructure and health

There are increasing concerns about the risk to human health in built up areas of fine particulate emissions, especially from diesel engines. A sustainable future will require the elimination of fossil fuel transport, but this will take time. In the meantime, mitigation will be needed, and two recent studies by the Universities of Lancaster and Surrey point to the benefits of trees and hedging in filtering out harmful particulates.

The [Lancaster study](#) used wind tunnels to show that small silver birch, yew and elder were very effective at trapping up to nearly 80% of microscopic particles, and suggest they should be planted at 'hot-spots' for traffic. The [Surrey study](#) looked at hedges and trees along busy roads and found the best results came from hedges extending to head height. With winds blowing along the road, up to 52% of soot was removed and 30% of the other finest particles. Urban green infrastructure doesn't just look good and make us happier; it can keep us healthier too.

And finally...

Thanks for front gardens

It was good to see in the [Healthy Life Essex blog](#) how Eileen Peck has taken it upon herself to drop thank you letters through the front doors of people who have wildlife-friendly front gardens.

Her letter, which is available to [download](#) so that you can do the same, starts, "I'd like to thank you for the lovely front garden you have. I thank you not only for myself but for the birds, bees and insects who no doubt enjoy it too!"

Good on you, Eileen!



The newsletter is sent to all the members of the WLGf; you are 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 was 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 Adrian Thomas with Marc Carlton, Judith Conroy, Steve Head, Karen Murphy, David Perkins, Andy Salisbury and Ken Thompson. All photos by Adrian unless stated.