



WILDLIFE GARDENING FORUM

E-newsletter: August 2019

www.wlhf.org

@WLGForum



Headlines

From the Forum:

- Autumn conference [Book now](#) for our autumn conference, *Healthy gardens for people, plants and wildlife*.
- 120 people attend Forum's spring [Wildlife Gardening Day](#) – and we're planning more
- Forum [Facebook group](#) triples in size
- New [webpages](#) added to Forum site

In the news:

- [Avian malaria](#) may be behind house sparrow declines
- Government announces new [guidance](#) for housebuilders to help wildlife
- [Two hours](#) in nature a week is shown to be good for you
- [Urban Tree Challenge](#) fund launched
- [Feeding garden birds](#) is changing their populations

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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@wlhf.org.

Forum news

Booking for autumn conference opens: Thurs 24 Oct, London Zoo

[Book now](#) for our autumn conference, *Healthy gardens for people, plants and wildlife*. It is being held in collaboration with the Zoological Society of London and the Garden Wildlife Health (GWH) project. Everyone is welcome.

This one-day event will explore the benefits and risks that garden habitats can pose to plant, animal and human health, with speakers discussing best-practice for wildlife friendly gardening, and highlighting a One Health approach to maximise the benefits of garden habitats.

Huge boost to Facebook group

The Forum's [Facebook group](#) has tripled in size in the last two months, with now nearly 7,000 members, and with 1300 posts in the last month. It is a place to share what you have been doing in your garden or local greenspace to help nature, and to seek advice from the community about garden wildlife, plants for wildlife and the best ways to garden in a wildlife friendly way.

Spring Wildlife Gardeners Day

About 120 people gathered in May for our second Wildlife Gardeners Day at the London Wetland Centre. It was a similar format to the previous year's event, with talks, workshops and stalls, but in response to your suggestions we cut down on the plenary talks, and instead gave a whole hour to each workshop.

Feedback from the day was extremely positive, and we plan to run the event again next year. We are also discussing with the National Botanic Garden of Wales about holding a similar event there in June 2020, probably with a meadows flavour. Please get in touch [here](#) if you would like to be involved at this magnificent venue – running a workshop, giving a talk or setting up a stall.



The main session underway. Photo: Helen Bostock

Website developments

We have now completed the *Hemiptera* section in our Garden Wildlife section, and have added a long list of Facebook groups that might interest you within the 'Finding out more' of the Garden Science section. Why not check out [this page](#) about shieldbugs or [this one](#) about pond bugs (water-boatmen, backswimmers etc). Our aim is to be a leading source of information about wildlife-friendly gardens and garden wildlife.

We are also starting to create a new section we are calling 'How to...', which will have concise and scientifically-robust practical guidance on common wildlife gardening projects. The first three will be on creating and managing bee hotels, bird baths and planting for pollinators. These won't replace more detailed advice already available on the web pages, but we hope will be a great resource for new visitors to the site. Please let us know of pages you would like us to create.

Trustee vacancies

Morag Shuaib has stepped down from the Trustee board of the Forum for family reasons – our thanks for all her efforts over the last year and more, especially in being the Forum Secretary.

It means that we have two vacancies for Trustees. The entire Forum is run by volunteers, so if you have a bit of time and energy to spare, and think you can help shape and drive the Forum's activities, we'd love to hear from you. The Trustees meet four times a year (in London or by teleconference). If you would like to talk through in more detail what is involved, please [get in touch](#) now.

Forum Chair on the telly

Andy Salisbury, chair of the Wildlife Gardening Forum's Trustee board, has been all over our screens this spring, twice on Springwatch and once on Gardeners World. The Springwatch pieces were linked with his work on garden invertebrate diversity and using the Vortis suction sampler – in effect a big bug hoover (right). The Gardeners World piece was on the lily beetle *Lilioceris lili*. To watch Andy in action visit BBC iPlayer [here](#) at 42:00 and [here](#) at 48:40.



Events and calendar

2019

24–25 Aug [National Bat Night](#)

26– 28 Sep National Moth Night, celebrating its 20th anniversary. As usual the event has a theme and the twin focuses of this year's Moth Night will be the stunning Clifden nonpareil *Catocala fraxini* and migrant moths.

24 Oct Wildlife Gardening Forum Autumn conference

23 Nov – 1 Dec National Tree Week

2020

26-28 Jan RSPB Big Garden Birdwatch

14–21 Feb National Nestbox Week

Would you like your event to be featured here? Email news@wlqf.org

Wildlife gardening research

Spanish and native bluebells



Spanish-type bluebell, with typically paler and more robust flowers, arranged around the stem rather than in a nodding, one-sided spike.

How much of a threat is the Spanish bluebell *Hyacinthoides hispanica*, commonly grown in gardens, to our native bluebell *H. non-scripta*? Specifically, could interbreeding eventually ‘hybridise into extinction’ the native bluebell? A team led by the Royal Botanic Garden Edinburgh conducted a four-year [study](#) to find out.

Growing the two together in a garden, and carrying out experimental crosses, showed that hybridisation certainly occurs. But a genetic ‘paternity’ test of the seeds produced showed the native was a better parent with an approximately 3:1 ratio of seeds fathered by natives compared with non-natives.

One of the reasons for this difference was that viability of native pollen was always high, but viability of non-native pollen was very variable, and sometimes very poor. This is because the ‘Spanish bluebells’ are almost certainly hybrids themselves, and hybrids often have lower fertility.

More research is needed, but the greater fertility of our native bluebell, combined with its massive numerical superiority, suggests that the risk of being genetically swamped by non-native bluebells is not as great as feared. It is no reason to be complacent, but it is a ray of hope.

Effect of plant loss on pollinators

What happens to pollinators if they lose their most favoured plants from a habitat? To find out, a team working in a meadow in South Bohemia experimentally removed all the flowers of the plant most used by pollinators there, then the next most popular, and so on, measuring the reaction of the pollinator community after each removal.

The [results](#) showed that removing the first plant had little effect; pollinators mostly just moved onto their second-favourite plant, and the total number of visits by all pollinators didn’t change. But removing another plant, followed by another, and then another, had an increasingly large effect. Total visits by all pollinators fell, suggesting that some pollinators simply gave up and went elsewhere. Those that remained moved on to new plants, mostly those with flowers most like the one that had just been lost. They also tended to go for plants that offered the most sugar per flower.

For gardeners, one familiar conclusion is that you should grow as many different kinds of pollinator-friendly plants as you can. A slightly more subtle message is that ‘generalist’ flowers, popular with a wide range of pollinators, may play an important role in attracting pollinators that then go on to visit less-popular ‘specialist’ flowers.

Climate change driving the Ranavirus disease affecting UK frog populations

In the UK, the common frog *Rana temporaria* is prone to a fatal disease called ranavirus. New research by the Zoological Society of London (ZSL) and two London universities suggests that climate change has increased the spread and severity of this disease, and will continue to do so.

Incidence of the disease peaks during the hottest months of the summer, so climate change could result in outbreaks becoming more frequent from April–October, while outbreaks in the spring could cause the deaths of large numbers of tadpoles. Up to now, Ranavirus disease has been largely restricted to England, but with climate change, the disease is likely to spread across most of the UK in the next 50 years.

Meanwhile a separate piece of research sponsored by ZSL and the University of Exeter has shown how susceptibility to Ranavirus among frog populations is associated with variations in the microbial community on the frogs' skin. This line of investigation could help to inform future conservation strategies for amphibians.

The danger of spreading serious diseases is the main reason why amphibian conservation organisations and the WLG strongly urges gardeners not to move frogspawn between ponds. Our [autumn conference](#) will include more about these issues.

Mixing native and non-native plants is best for bees in America, too

The [Plants for Bugs](#) project conducted by the Royal Horticultural Society in association with the Wildlife Gardening Forum showed that there isn't much difference between native and non-native plants in their popularity with pollinators, and that planting lots of flowers from several origins (especially from the northern hemisphere) is best for pollinators.

Now another [study](#), this time in California, has come up with essentially the same conclusions. It looked back over 20 years of urban bee-flower records, and looked at 224 species of native bees and 5 non-native bees. These were observed on 15 native and 19 non-native flower types.

While 71 bee species were seen on native plants, remarkably 52 were only seen on non-native plants and 101 used both native and non-native flowers. The most consistently popular plants were lavenders and catmints, non-native to the area and *Ceanothus* species (*below*). As with the RHS study, the scientists found the non-native plants extended the total flowering period and the overall resource available longer through the year.

The authors concluded that contrary to much published advice, the best strategy for planting a bee-friendly garden is not to stick to native plants alone, but to include a mix of species from different origins.



The Urban Tree Challenge Fund

The UK Government has announced the opening of the [Urban Tree Challenge Fund](#) (UTCFF) which will fund the planting of at least 20,000 large trees and 110,000 small trees in urban areas in England. It will contribute towards meeting the Government's manifesto commitment to plant one million urban trees by 2022.

The fund is available for 2 years (2019/20 and 2020/2021) and applications must be submitted during an application window. In year one, the fund is open for block bids only. In year 2, the fund will be open for individual applications and, dependent on budget allocation, block bids too.

Feeding garden birds is changing their population levels

At the WLGf conference last year in Bristol, we heard an early summary of important research by the BTO into the effects of supplementary feeding on garden birds. The study is now published in the journal [Nature](#) with the BTO's own summary [here](#).

Back in the 1970s, bird feeders typically only attracted house sparrows *Passer domesticus* and starlings *Sturnus vulgaris*, but now, with much greater variety of food being offered, many more species are involved. The number of unique commercial food products available increased from about 10 in the early 1970s to about 130 now.

The increase has been particularly dramatic for the goldfinch *Carduelis carduelis* and woodpigeon *Columba palumbus*. Overall the diversity of birds in gardens is increasing, with the number of feeders having a much greater effect than other factors such as winter temperature and local habitat types. Having more feeders probably also reduces the dominance of some species at feeders and increases opportunities for others.

It seems that supplementary feeding is leading to overall population changes, and a national-scale restructuring of bird communities. It is likely that the positive benefits of feeders are due to improving survival, physical health and breeding success.

However feeders can have [negative effects](#) through spreading diseases, and by providing inappropriate and stale food, so it is important that people feeding birds in their gardens do so in a well informed way.



Woodpigeon rain-bathing.

The value of stepping stones through sub-optimal habitat

On the WLGf website we have described the [potential for gardens to act as stepping stones](#) to help species adapt to climate change by allowing them to move through an otherwise hostile environment.

A [study](#) led by researchers at Tuft's University in the USA has shown how this can work. Using theoretical modelling, they have shown that species move more quickly through 'sub-optimal' environments than optimal environments. As long as they can survive the journey, having stepping stones of optimal habitat may help a species disperse more effectively. Where there are large areas of optimal habitats, species have little incentive to leave them.

Gardens within urban environments provide this sort of pattern for many species, and may provide exactly the stepping stones that species will need to adapt their range in response to climate change.

The work suggests that efforts to create corridors of continuous high quality habitat may not be necessary and may even be counter-productive as species try to move in response to climate change. This finding may have an impact on land planning, and may make provision for managing environmental change just a little bit easier to achieve.

House sparrows, avian malaria and hedges

A new piece of evidence may explain the calamitous declines in house sparrow *Passer domesticus* populations in many parts of the UK over the last few decades.

A team from the Zoological Society of London (ZSL), the RSPB, the BTO and the University of Liverpool have investigated if a parasite that causes avian malaria is involved, and [found](#) that 74% of the sparrows in suburban London were infected, higher than previously recorded in any wild bird population in Northern Europe. Also, survival rates of juvenile and adult sparrows and population growth rate were negatively related to infection intensity.



Meanwhile, in Glasgow, where the population is thought to have fallen by 90% over the past 40 years, the [Glasgow House Sparrow Project](#) has been seeking to better understand the species' urban decline. A collaboration between the University of Glasgow and RSPB Scotland, the main trends identified by this 'citizen science' project are:

- 85% of gardens with house sparrows had high, dense cover in the form of hedges or bushes.
- The hedges favoured by house sparrows are those with a loose structure and interior gaps.
- House sparrows show a year-round preference for gardens containing bird feeders, particularly where feeders are within one metre of bushes.

As a result of the project, hedgerows have been planted in several green spaces across Glasgow, nest boxes have been provided and wildflower meadows have been created to provide additional invertebrate food for chicks.

Wildlife gardening policy

New road sign warns of mammal hazards

The Department for Transport has unveiled a new traffic sign, featuring a hedgehog, which warns road users of hazards due to smaller wild mammals in the road ahead. The DfT has called on local authorities and animal welfare groups to identify hotspots where the sign should be located where there are frequent casualties of species such as otter *Lutra lutra*, badger *Meles meles* and hedgehog *Erinaceus europaeus*.



The People's Trust for Endangered Species (PTES) runs a volunteer '[Mammals on Roads Survey](#)'. Anybody who is a passenger in a car can participate, by counting the mammals – dead or alive – they see on a journey. Using results from this survey PTES estimates that around 150,000 hedgehogs are killed on roads each year. PTES has worked with the DfT on the development of this new road sign and it is hoped that use of this sign will help to reduce mammal road kill.

England's housebuilding guidance embraces hedgehog highways and swift bricks

On 21 July, in one of his last acts before moving aside for Boris Johnson's new cabinet, James Brokenshire, the Communities Secretary, announced [revisions to the National Planning Policy Framework](#) guidance requiring that developers do more to protect England's wildlife.

Specific measures include 'hedgehog highways' through garden fences and swift bricks built into the fabric of houses. The expectation is that house building companies (and the local authorities that consider the applications) will consider the long-term impact of their developments on the local ecosystem, both during and after construction.

London gets new green status

On 22 July, London was launched as the world's first [National Park City](#). It comes astonishingly quickly on the back of a campaign by what is now called the Greater London National Park City Foundation, a registered charity formed in 2017, that has been established to bring the idea to life.

The launch was accompanied by The Mayor of London's National Park City Festival from 20 to 28 July, with hundreds of free events across the city, from outdoor fitness sessions and live performances to bee-keeping and open water events for the family.

So what does the status mean? The NPC website explains that it will "work with residents, visitors and partners to enjoy London's great outdoors more, make the city greener, healthier and wilder and promote London's identity as a National Park City.

The WLGf played a significant part in the creation of the Foundation, with Steve Head, our Coordinator, negotiating charity status for it with the Charity Commission, and being its first Chair of Trustees.

The National Park City Foundation, World Urban Parks and Salzburg Global Seminar have begun an international conversation to develop a Universal Charter of National Park Cities.

Wildlife gardening resources

Activity cards to get back to nature given royal approval

Much excitement was shown by the media at the collaboration between the Duchess of Cambridge and the RHS to create a ['Back to Nature'](#) garden at Chelsea (and then Hampton Court) this year. It was designed to be an exciting place for children and their families, with a tree house, hollow log for scrambling through, and a swing, waterfall and stream – all in a woodland setting. It also aimed to be attractive to wildlife.

Regrettably, our spies at the Show found the garden so popular with the visitors that they were unable to see anything of it because of the queues! – though it looked fun on the telly. See our [blog](#).



However, the Duchess and the RHS have produced [five children's activity cards](#) on the back of the project, and while four are essentially experiential, there is a card on [creating a bug hotel](#).

While it is a bit brief, and doesn't mention important issues such as where to site it, size of holes, management, or even what it is intended to help, it is good to see facilities like this for wildlife being promoted so prominently.

Advice on managing road verges

One of the most popular talking points on the WLGf Facebook page this summer has been Rotherham Council's annual cornfield mix sowing of their verges.

For an overview of road verges and their value and potential for wildlife, check out Plantlife's [The Good Verge Guide](#), which is their "accessible and practical guidance on nature-friendly road verge management".

Later this summer, they are due to bring out a more technical management guide for highway authorities, their contractors and community groups.



Garden wildlife

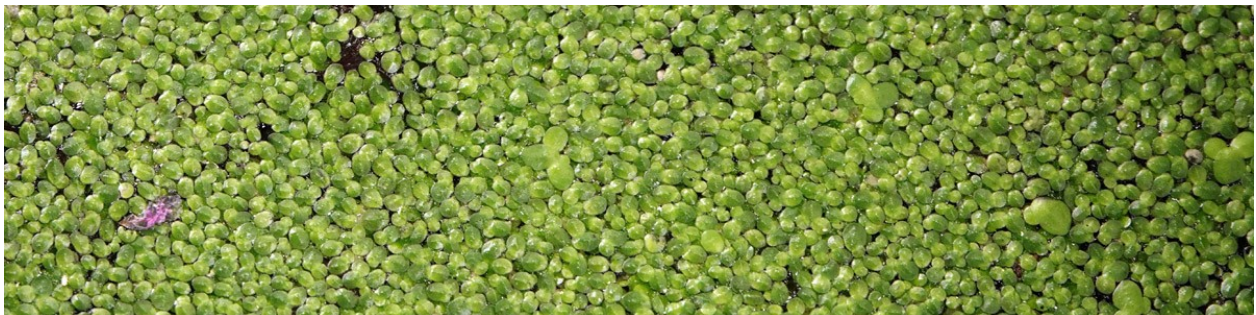
The sustainable wonderfood of the future is in your pond now

The [Daily Telegraph](#) has reported (with some levity) a conference report that the EU will shortly be asked to endorse duckweed *Lemna* species as a protein-rich novel human food. This is actually a significant development, and is based on a project funded by the [Wellcome Institute](#) in London, and led by Wageningen University in the Netherlands.

Duckweed has been used as food in Asia for generations. It grows extremely fast (as garden pond owners know well) and is 43% protein by dry weight. It can yield ten times more protein per unit area than soy beans. Unlike other plants where often only the seeds or the leaves are edible, you can eat all of it – and it tastes pleasant.

There is even a recent paper in [ScienceDirect](#) which ran a small trial of the acceptability of duckweed to Dutch consumers. Those surveyed considered it a vegetable, and found it most acceptable when used as such. The more people knew about duckweed’s sustainability and nutritional credentials, the more they liked the idea, but in what they thought an unsuitable situation there was a “yuck factor” – the first time we have seen that term in a science journal!

Experts have found a way of drying the weed to make a powder, and in turn this makes up the superfood known as Lentein, which contains 68 per cent protein.



Wildlife gardening and citizen science

Future Invasives Project asks for your help

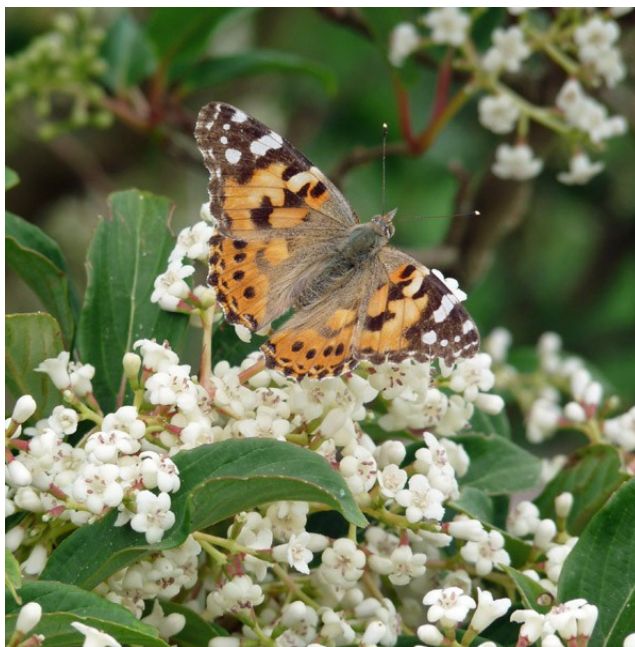
Tomos Jones, a PhD student supported by the RHS and based at Reading University, is working on identifying ornamental plants that might one day “jump the garden fence” and become invasive in Britain and Ireland. Given that gardeners can spot plants with invasive tendencies in their own plots, he is asking us to complete a simple survey that could provide very useful background information. You can find the survey [here](#) and it doesn’t take long to complete.

Tomos has a rare new entry for his CV. As part of his programme of raising interest and awareness, he created an [exhibit](#) at Chelsea Flower Show – which won him a gold medal!

Is it the year of the ladies?

This spring, Britain and Ireland had an invasion of painted lady butterflies *Vanessa cardui*. This species is famous for its annual long distance migrations (through several generations) from Africa to northern Europe. It is likely that the offspring from these could lead to a bumper population here in late summer. Such invasions are periodic; the last bumper year was 2009, and events like this probably result from unusually favourable breeding conditions along the migration route.

Painted ladies are very fond of gardens for nectaring, and Butterfly Conservation is encouraging everyone to report sightings through the [Big Butterfly Count](#), which runs until 12 August 2019.



Wildlife gardening and health

Spending two hours a week with nature really is good for you.

There is growing [evidence](#) that exposure to green environments is good for children's development and for adult health and wellbeing, but much of the literature is observational and not statistically sound.

However, a [study](#) led by Mathew White of Exeter University examined a huge dataset from the Natural England's 'Monitor of Engagement with the Natural Environment' survey. During this survey, health and well-being questions were answered, as well as detailed questions about the extent of respondent's recreational contact with nature. Although the health and wellbeing answers were subjective, these descriptors are known to be reliable pointers to actual health levels.

The analysis controlled for factors such as neighbourhood greenspace availability, regions of social deprivation, air pollution and gender. The people most likely to spend two hours or more a week in a 'green environment' were those who lived in areas with less social deprivation and lower air pollution, were under 65 years old, of higher socio-economic status, without disability, not in full-time employment, and had a dog.

Counter-intuitively, people living in the least green neighbourhoods were more likely to report two hours or more of recreational contact with nature than individuals living in greener areas.

The main result was that, people who did experience 120 or more minutes contact a week were significantly more likely to report good levels of health and well-being than those reporting less. Perhaps surprisingly, exposure above this level did not seem to improve the effect further.

This is a very encouraging result to show how wildlife gardeners – indeed all gardeners – who spend quality time in the garden can benefit their health.

Wildlife gardening campaigns

Backyard Nature campaign

Run by Semble in association with Iceland Foods, [Backyard Nature](#) aims to "get all children to spend more time enjoying and protecting nature where they live". It invites children to pick a patch, whether that be a plant pot, a public footpath or part of a park, and then protect that patch using information sheets from various conservation charities, and then photograph your patch.

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 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 1,500 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 Adrian Thomas with help from Marc Carlton, Steve Head, Andy Salisbury and Ken Thompson. All photos by Adrian unless stated.



Wildflower meadows have been a hot topic this summer, especially with a whole hour special of Gardeners World dedicated to the topic. This garden meadow in Sussex has been colonised by small blue *Cupido minimus*, common blue *Polyommatus icarus* and brown argus *Aricia agestis* butterflies in its first two years.