

WILDLIFE GARDENING FORUM



NEWSLETTER

Autumn/Winter 2014

Welcome to the newsletter of the Wildlife Gardening Forum (WLGf). In it, we bring you news of the WLGf's recent activities as well as stories from around the UK that have implications for garden wildlife and wildlife gardening.

The newsletter is sent to all the members of the WLGf; you are welcome to forward it to any friends or contacts. Do encourage them to join the Forum by visiting www.wlgf.org and filling in the simple form.

If you have a story you would like us to feature in the next newsletter or feedback on this one, please send it to news@wlgf.org, either directly or through the Contact Us page on the website. If you are from an organisation, feel free to add this address to your distribution list for relevant press releases.

Seasons greetings to you all, and happy gardening in 2015.



Contents

| | |
|----|----------------------------|
| 2 | <i>News from the Forum</i> |
| 6 | <i>Science</i> |
| 8 | <i>Citizen Science</i> |
| 10 | <i>Education</i> |
| 11 | <i>Campaigns</i> |
| 15 | <i>News in Brief</i> |

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 620 members. Formed in 2005, our core aim is to help gardeners and decision-makers understand just how important our gardens are for wildlife.

News from the Forum

The Forum's new website

It took a long time, but at last it's here. Our new website was quietly launched at the WLGf conference at the Natural History Museum on 28th November. It is the result of the combined efforts of getting on for 30 Forum members who have contributed articles and photographs for the site.



As launched ('Phase 1.0') the site is far from complete, but has all the major sections in place. It has all the necessary coverage about the Forum itself, almost all the Gardens and Wildlife Science section, and introductions to all the key topics. So far there are 59 pages and about 60 additional and more detailed downloadable articles and leaflets. There are 101 external web links to other websites and over 200 links to organisations represented in our membership.

The website will grow in the next months through addition of new pages ('Phase 1.1' and beyond) which will see extensive information on education, human health and wellbeing, and more on Practical Wildlife Gardening. Phase 2 will include the addition of a major section on Garden Wildlife, which plans to fill in the gaps in other websites coverage, concentrating on the less charismatic garden inhabitants. We are also working on a Gallery, with the help of Forum Member Martin Angel's exceptional collection of wildlife photographs, and we plan i-phone friendly news and blog sections. This will take a bit more time, but we hope to launch Phase 2 later in 2015.

Can you help with this project? If you would like to write about various aspects of wildlife gardening or contribute case studies of successful projects, please get in touch. We are still happy to accept photographs, especially of properly identified wildlife, and of examples of practical gardening. In particular we would like some photos that could be made into the long images at the top of each web page. These should be about 3½ times longer than they are high, and you can see where they would be useful from the website where currently many images are the same. Those of you with an iPhone will find the panorama feature on the camera is ideal.

A particular challenge for you all is to invent an appropriate image for the 'Contact Us' page.

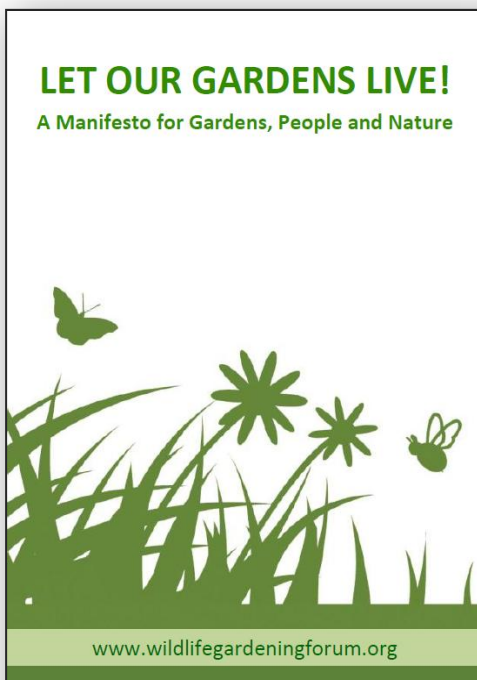
We will be getting back in touch with people who expressed an interest in social media and blog management for the Forum.

Please give us some feedback on the site as it develops. There are quite a few niggling font discrepancies and so forth to correct, and we are happy to have them pointed out. You can address your comments directly to Steve@wlgf.org, or use the Website Comments button on the 'Contact Us' page.

Next conference: Soil Biodiversity in the Garden

The next Forum Conference will be in the early summer, back at the London Natural History Museum. The subject is important but very unusual – the significance of soil in the wildlife garden, and the creatures that live in it. Not just earthworms! We will let you know as soon as we have a firm date and programme.

WLGf manifesto



The WLGf's Trustees have updated our manifesto, entitled 'Let our gardens live', which describes what the Forum is, what it does and – most importantly – why.

In the words of the Manifesto, it "highlights the importance of gardens, both for wildlife and for people's health and wellbeing. It is aimed at those who make and influence decisions. It outlines some of the actions we need to take to protect gardens – and to help more people enjoy and support their garden wildlife."

It is available for download from the "About Us" section of the [WLGf website](http://www.wildlifegardeningforum.org), in both English and Welsh language versions.

Planting advice transparency – recommendations proposed

WLGf Trustees have been discussing the various issues and shortcomings in the way advice is given about which garden plants to grow to benefit wildlife. As a result, the WLGf Plants and Planting Group has made the following recommendations for anyone publishing advice about choosing garden plants for wildlife:

- The advice should always include information on where it is sourced. Such clarity would help readers decide on its relative reliability and value.
- It should always aim to be as clear as possible as to what wildlife it is directed towards. For example, is it for pollinators? Or is it actually for adult butterflies, bumblebees and honeybees rather than hoverflies, pollen beetles and other less showy pollinators?
- It should always seek to explain whether it seeks to be definitive or is just a limited set of suggestions.
- It should seek, where possible, to set out the geographical and environmental parameters of the advice.

For the full paper, go to the Plants and Planting page of the website, or directly from [here](#).

WLGf produces planting list for Welsh pollinators

At the last meeting of the Welsh Government's Pollinator Task Force, Marc Carlton (on behalf of WLGf) and Jan Miller (on behalf of North Wales Wildlife Trust) were jointly tasked to produce a planting list for pollinators.

This has now been produced and signed off by WLGf Trustees. The intention of this list is to provide gardeners with straightforward suggestions to help them and it contains well-known plants about which there is a consensus that they attract insects in one way or another. 'Pollinators' has been interpreted to include butterflies and moths and thus the list includes some of their commoner larval food plants. The list has been qualified in line with the recommendations proposed in the previous item.

A copy of the list is available from the Plants for Pollinators page on the website, or directly from [here](#).

WLGf's collaboration with *Gardening Which?*

One of the major shortcomings in wildlife gardening advice, as highlighted by the Forum's Plants and Planting Group, is the lack of data regarding the relative merit of different plant species and cultivars for wildlife. In the last few years, valuable results have begun to emerge from studies such as the RHS Plants for Bugs project and research undertaken by universities such as Sussex, but this is a vast subject and the Group was keen to explore options for citizen science studies.

So in 2013, we worked with *Gardening Which?* magazine to set up a reader trial to see if it was a potential avenue for generating data. The subject that *Gardening Which?* chose to study was whether

sunflowers that have been bred to be virtually pollen-free (for the cut-flower industry) are less visited by bees than pollen-rich varieties. Around 2000 participants elected to take part in the experiment and were sent three packets of seeds, labelled A, B and C.

Gardening Which? published their results in their September 2014 magazine, revealing that the study generated an encouraging 680 responses. Sunflower A proved to be the most popular with bees, both in terms of the average maximum count of bees and of the total number of bee visits; A also attracted more butterfly visits than the other two varieties. Surprisingly, A was the pollen-free variety, Sunflower 'Magic Roundabout'. In terms of attractiveness to birds, however, 'Magic Roundabout' developed seedheads that frequently just contained empty husks.

Although the Plants and Planting Group feel that there was too much variability in the data submitted to issue definitive advice about the relative merits of pollen-rich or pollen-free sunflowers for pollinators, we are delighted at the potential this study establishes for further citizen science work. The write-up by *Gardening Which?* was very sensible, and concluded "Our member trial has only shed light on one part of a much larger puzzle...It is essential these first steps are taken so eventually gardeners can be given fully researched, reliable advice."

Gardening Which? is now collating the results from our follow-up survey of annual umbellifers and we are currently discussing a third study for 2015.



Wildlife Gardening Science

Urban Pollinators Project points to value of gardens

Marc Carlton represented the WLGf at the unveiling of the provisional results of the three-year Defra-funded Urban Pollinators Project (UPP). The Project includes nine research projects looking at how important the urban environment is – or could be – for pollinators. The studies have been using extensive replication and controls to generate robust results, and over two million individual insect specimens have been collected so far.



We need to wait for fully analysed, modelled and peer-reviewed published data before we can enter into a full discussion of the results. However, one result beginning to emerge is how important gardens and allotments are as pollinator habitats in towns and cities. The following is a summary of the studies being undertaken:

- **Jane Memmott – How do urban habitats compare to farmland and nature reserves?** Provisional results indicate no significant difference in abundance of pollinators between the three land-use types, but more bee species in urban areas than in the other areas and as many rare species in urban areas as in the other areas (although probably different species).
- **Katherine Baldock – Where are the hotspots of pollinator biodiversity in cities?** The results are complex and depend on which group of pollinators is considered. So far, results suggest that abundance and species richness of pollinators overall are high in gardens and allotments, but not (statistically) significantly higher than in parks, cemeteries and urban nature reserves. However, there is the suggestion that bee richness and abundance are significantly higher in allotments and gardens compared to all other land use types.
- **Katherine Baldock – The effect of urban meadows on pollinators.** Fifteen experimental flower ‘meadows’ were created in each of four cities, the term ‘meadow’ in this context including ‘Pictorial Meadow’ type planting of annual flowers. All meadow sites had significantly greater insect abundance over control sites. Provisional results suggest a peak in abundance of pollinators earlier with perennials (Jul/Aug) than annuals (Aug/Sep), and also that perennial meadows had greater pollinator abundance and species richness, but there was variation between sites. Much more analysis still needs to be undertaken.
- **Graham Stone – Floral resources in urban meadows.** This research is attempting to answer the questions, ‘What makes a good meadow for pollinators?’ and ‘What seed mix should we use?’ The research has measured and ranked flowers according to pollen and nectar production and are now starting to assess pollen *quality*.
- **Mark Goddard – Managing urban habitats for pollinators.** A socio-economic study on how neighbourhood income affects richness of species.

Neonicotinoids may be affecting far more than bees

Research has linked neonicotinoid use in The Netherlands to farmland bird decline there. It demonstrates for the first time the knock-on effects of this group of insecticides to other species, which are already known to harm bees and other pollinating insects.

The study, published in [Nature](#), showed that – during 2003–10 – farmland bird populations fell most sharply in those areas where neonicotinoid pollution was highest.

David Gibbons, head of the RSPB Centre for Conservation Science, responded to the results, saying that they provided “worrying evidence of negative impacts of neonicotinoid insecticides on birds” and urging monitoring of neonicotinoid pollution in UK soils and waterways and further research into the effects of these insecticides on wildlife.

A spokesman for Bayer CropScience, which makes the neonicotinoid that was examined in the study, disputed the findings.

Another [study](#), this time from Canada and published in the journal *Functional Ecology*, has shown that neonicotinoids damage the natural ability of bees to collect food. The work used tiny tags to track bees and found those exposed to the insecticide gathered less pollen.

RHS issues guidance on use of the term ‘wild flower’

The term ‘wild flower’ (or indeed ‘wildflower’) is used in many different and confusing ways. Sometimes it is used to refer to native flowers; sometimes to the perennials found in a grassy ‘meadow’ such as those that were once widespread on farms; and sometimes to beds of annuals, native or otherwise, such as those in the Olympic Park.

The RHS has set out to try and define the term, specifically for the benefit of the horticulture trade, in the hope that it will help develop a shared understanding. The recommendations include:

- ‘Wild flower’ is only applied to those plants considered natives or pre-1500 introductions but not to more recently naturalised plants.
- If plants are neither natives nor pre-1500 introductions, it would be desirable to use alternative descriptions or selling names (examples on the market include ‘urban meadow’, ‘flowering meadow’, ‘ornamental meadow’ and ‘Pictorial Meadows™’ or suggested terms such as ‘cultivated annuals’, ‘cultivated perennials’ or ‘cultivated mix’) where relevant.
- Where there is a mix of native/pre-1500 introductions and non-native species, or native/pre-1500 introductions and cultivated selections of natives (i.e. cultivars), this should be made clear in the description.
- That the provenance of seed should be indicated to allow people to make an informed choice.

The full advice is available [here](#).

Wildlife Gardening and Citizen Science

Help survey the UK's trees

Most of the trees growing in our towns and cities are found in private gardens; information on their distribution is very limited. The Natural History Museum is asking for the public's help to find out what species are growing where in the UK.

The information collected in the [survey](#) will contribute to the understanding of the UK's trees and provide a baseline against which future changes can be measured, so it will be useful for generations to come.

Small Tortoiseshell fortunes rise in Big Butterfly Count 2014

Over 44,000 people took part in this year's [Big Butterfly Count](#), organised by Butterfly Conservation, cementing the project's status as the biggest survey of butterflies in the world.

The Smartphone app, which was created last year, continued to grow in popularity; over 11,000 counts (27% of the total) were submitted directly from participants' phones this year.

During the official count period (19 July - 10 August), almost 560,000 individual butterflies and moths of the 21 target species were counted and logged online. Although not specifically a garden survey, many of the records came from gardens.

The headline result was that 15 of the 21 target species of butterflies and day-flying moths decreased from the high point reached last year and the average number of individual butterflies seen per count fell considerably, from 23 in 2013 to 15 this year.

These declines came in spite of months of above average temperatures and a sunny July for much of the UK, conditions which should generally favour butterflies. However, the weather took a turn for the worse in August, curtailing the flight periods of many common butterflies and hastening others into hibernation. It was the coldest August since 1993 in the UK.

However, the Small Tortoiseshell's fightback continues. After a fantastic comeback in 2013, following years of decline, populations increased again by 22% in Big Butterfly Count 2014, an excellent result for a species that had suffered a 78% decrease in its UK population since the 1970s.

The Peacock was the most abundant species, the first time it has ever topped the rankings.



Can you help identify some bumblebees?

The Bumblebee Conservation Trust (BBCT) and the University of Aberdeen have developed [BeeWatch](#), an online survey which asks people to send in photos of bumblebees which BBCT will use to make maps of the distribution of the various bumblebee species.

BeeWatch is already receiving an average of over 100 photos submitted each day. BBCT staff identify most of the photos, but would like more people to get involved and help identify some of them. After several people have submitted an ID for the same photo, it will be accepted as an identification and the photographer sent information on the species. This 'crowd-sourcing' will allow to identify many more bees, and you can use it to improve your own ID skills.

Garden Bioblitz 2014 a fantastic success!

The second nationwide Garden Bioblitz to survey the wildlife of Britain's gardens took place over the weekend 31 May–1 June. During 24 hours, people all over the UK scoured their gardens for wildlife of all shapes and sizes.

The big difference in 2014 versus 2013 was the increase in warmth-loving insects – moths, flies, ladybirds (20 species!), bees (including 17 species of bumblebee), and the decrease in abundance of cold/moisture-loving species of mollusc, crustacean (mostly woodlice) and amphibians.

Highlight species found this year include the rare Heather Ladybird in Dorset, a honeybee swarm in Swindon, Stag Beetles in Surrey, Tree Bumblebees well towards their range edge in Solway, Newcastle and Falmouth, good numbers of Small Tortoiseshell butterflies and a funky little blind woodlouse that lives in ant nests, *Platyarthrus hoffmanseggii*.

To see the full results go to the Garden Bioblitz [Information Centre](#).



[Home](#) [What is a Garden Bioblitz](#) [BioBlitzing tips & advice](#) [Meet the team](#) [Contact us](#)

 **Thank you!** 

"A massive thank you to everyone who took part in the 2014 Garden BioBlitz. We received thousands of records. Now we're looking forward to the next one - we'll let you know the date! *Liz, Ryan, John, Richard and Jane*

Results in from Big Bumblebee Discovery



A patch of lavender in a city centre sees more bumblebees than a patch in the country, according to preliminary results from a citizen science project. Rather than higher bee numbers in cities, the results probably reflect a higher concentration of urban bees on more limited flowers.

Around 30,000 schoolchildren from 400 schools across the UK undertook the counts as part of the [Big Bumblebee Discovery](#). The first insights were announced at the British Science Festival.

"Within cities, there are fewer floral resources," said Dr Michael Pocock from the Centre for Ecology and Hydrology, who led the analysis of the data with colleague Dr Helen Roy. "One of the likely explanations is that there's a concentration effect – the bumblebees in the area are concentrated on floral resources which are provided through pots and beds of lavender."

That isn't necessarily bad news, Dr Roy added, because it suggests that planting more flowers in cities will help boost bumblebee numbers.

"I think it's a really exciting result because we tend to think of cities as being hostile environments for a lot of wildlife," she said. "But [this suggests] we can create an oasis within cities."

Dr Roy and Dr Pocock are now working on a scientific paper to report the findings in detail.

Wildlife Gardening and Education

Polli:Nation gets HLF funding

The Heritage Lottery Fund (HLF) has announced £1.3M support for the UK-wide biodiversity project – [Polli:Nation](#), a programme developed by the school grounds charity, *Learning through Landscapes*. The project will support schools in helping to protect the future of our seriously dwindling bee population. Partners include The Field Studies Council, Buglife, Butterfly Conservation and the OPAL Network.

During the development of the project, the Polli:Nation team wants to collate some basic information about people's knowledge and thoughts on pollination and schools. If this is of interest to you, please fill in one of the short surveys below - it shouldn't take longer than 4 minutes. The team will use the information gathered to inform the rest of the project and ensure it doesn't overlap with the outstanding work already going on in schools and beyond.

Wildlife Gardening and Campaigns

Attenborough extols the benefits of gardening for wildlife

At the RSPB's [State of Nature conference](#) in London on 3 September, attended by business people and politicians from all parties, Sir David Attenborough's headline address touched on the potential value of gardens in nature conservation.

"We ought to recognise that whereas we thought in 1945 that the way we were going to solve the problems about the natural world was to create wildlife and countryside areas, National Parks and nature reserves, we now know that is not enough," he said.

"Those nature reserves are as important as they have ever been, but they are by no means enough. We now know that the whole of the countryside and indeed the whole of the urban landscape are available for wildlife, and we should make them more welcoming for wildlife.

"We should make sure that the suburban gardens, which represent a very significant proportion of the area of this country, are made more and more accessible and more and more suitable for wild creatures that are native to this country, or are now slowly moving into this country.

"There are enlightened areas where once there were those semi-sterile beds of grass or municipal planting, are now rich meadows and I rejoice in them. But that can go much further.

"The fact of the matter is that we, *Homo sapiens*, are dependent on the natural world, we are part of the natural world. We depend on the natural world for the air we breathe, for the food we eat. Some people may even say we are dependent on the natural world and contemplating the natural world for our very sanity.

"Because of the complex relationship society has with nature, it is obvious that our response to saving it must extend from every possible quarter too. With an increasing global footprint, mankind is intensifying the crisis for wildlife, but as individuals we can all be part of the solution for saving it too."

A transcript and video of Sir David's speech is on the Forum Website [here](#).

Do more for hedgehogs

The People's Trust for Endangered Species garden continues to encourage people to do more to help hedgehogs on the back of their gold medal and People's Choice garden, Hedgehog Street at Hampton Court Flower Show 2014.

By visiting www.hedgehogstreet.org, you can pledge to make a hole in your fence or wall, or map an existing hole, as part of the initiative to help hedgehogs move from garden to garden.

Could London become a ‘national park’?

Daniel Raven-Ellison, part of the Geography Collective of ‘guerrilla geographers’, has garnered significant press interest with his idea that London ought to be designated as a national park. He wants everyone to view the urban environment differently, appreciating, for example, that there are eight million trees in London making it “the World’s largest urban forest”.



His campaign and impressive [website](#) points out that Greater London has more than 13,000 species, including humans, inhabiting 3,000 parks, 30,000 allotments, three million gardens and two National Nature Reserves. Overall, 47 per cent of London is green space and 60 per cent is classified as open space.

Greenspace Information for Greater London has created a new [map](#) to accompany the campaign which shows only green features.

London wouldn’t match the criteria set out in the existing law for creating national parks but Raven-Ellison believes that the overriding purpose of national parks, namely “to conserve and enhance the natural beauty, wildlife and cultural heritage; and promote opportunities for the understanding and enjoyment of [their] special qualities” could apply to a city.

The Campaign is holding a meeting at London’s Southbank on 24th February, and the Forum’s Coordinator, Steve Head, will be speaking.

Greenpeace warns of neonicotinoids in pot plants

Independent studies by Greenpeace International in Europe and by the Pesticide Research Unit and Friends of the Earth in America have found that large numbers of pot plants are contaminated with insecticides, including neonicotinoids.

The Greenpeace [study](#) found that, in their sample of 86 ornamental plants sourced from garden centres, supermarkets and DIY stores in ten European countries, 79% of were contaminated with insecticides considered dangerous to bees and almost half contained one or more of the three neonicotinoids (Imidacloprid, Thiamethoxam and Clothianidin) which are restricted Europe-wide for certain agricultural uses in order to help prevent exposure to bee.

In the USA, 51% of 71 samples of bee-friendly plants were contaminated. Residues in the [American study](#) ranged from 2–748 parts/billion; a dose of 192 parts/billion is thought to be enough to kill a honeybee while navigation, memory and foraging ability may be impaired at as little as 4 parts/ billion.

WLGf Trustees have looked at the reports and their implications. They feel it is important to add a cautionary note regarding the very small sample sizes and the fact that the European study did not include samples from the UK. It is also possible that the insecticides in the European study were applied prior to the EU ban on three key 'neonics'. Regrettably, the Greenpeace report also includes some major data discrepancies and it is also not yet clear to what extent neonicotinoids added to soil spread to other plants.

Nevertheless, the studies are very worrying, and highlight a potential invisible problem for everyone when buying plants. Insecticides are widely used in the horticulture industry, often as a seed dressing, and pot plants in the UK are regularly imported from the EU and beyond, so it is possible that many gardeners are unwittingly introducing a cocktail of insecticides into their garden when buying plants.

Greenpeace is urging retailers to eliminate all bee-harming pesticides from their entire supply chain, calling for a rigorous improvement to the supply chain management and tracking system in the horticulture sector. It is also lobbying European policy makers to make sure that the loopholes in the current bans on neonicotinoid pesticides are closed.

Public urged to support bees' needs

Five simple actions to help pollinators are being promoted to protect the vital contribution these insects make to our economy.

The [call to action](#), which is supported by Defra and was drawn up by experts from Natural England, the Food and Environment Research Agency, conservation charities and the research community, was launched by Environment Minister Lord de Mauley at a conference organised by Plantlife, the Rare Breeds Survival Trust and The Wildlife Trusts, to encourage people to do their bit to help insects such as bees and butterflies.

The five actions are:

- Grow more nectar- and pollen-rich flowers, shrubs and trees
- Leave patches of land to grow wild
- Cut grass less often
- Avoid disturbing or destroying nesting or hibernating insects
- Think carefully about whether to use pesticides



Making a B-Line for London

A new multi-partner project has been launched which will work with communities along a line right across London from Enfield to Croydon (see the map of the proposed route below) to help pollinators.

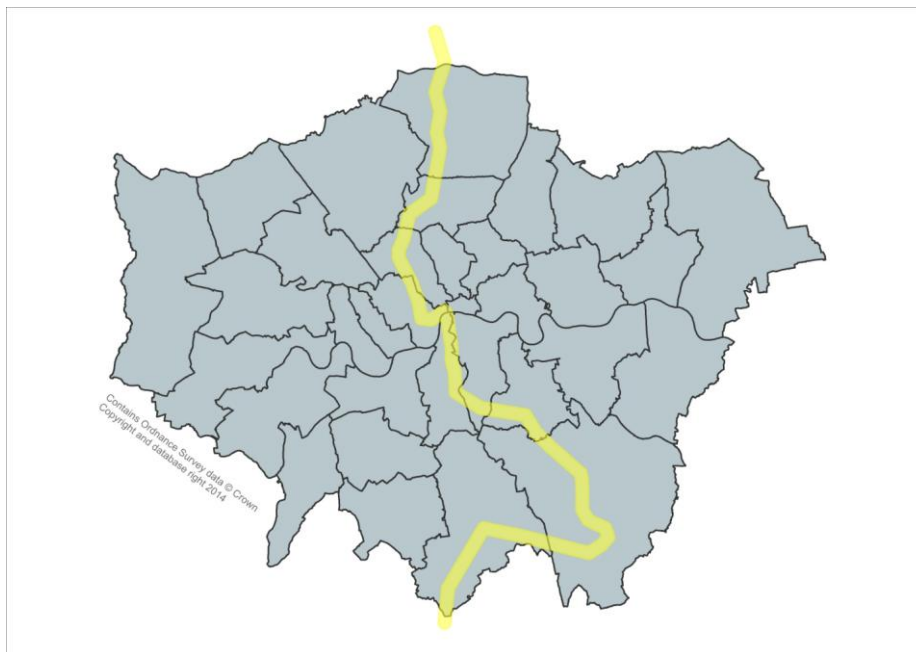
[B-line for London](#) also aims to raise awareness of the benefits of pollinators and encourage action to protect, conserve and celebrate pollinating insects.

Subject to funding, it will do this through:

- increasing the amount of suitable habitat available for a range of pollinating insects by demonstrating and promoting simple changes to the ways we manage London's parks, gardens and other green spaces.
- monitoring the changes in the abundance and diversity of pollinating insects in response to greater habitat availability in order to highlight the most effective and efficient techniques and interventions for increasing the amount of good quality habitat.
- providing tools and advice to help people improve spaces for pollinators

Ultimately it hopes to encourage the development of an interconnected network of B-Lines across London.

The Making a B-Line for London partnership includes: Bee Collective, Buglife, Forestry Commission, Greater London Authority, Greenspace information for Greater London, London Wildlife Trust, Natural England, RSPB and University of Sussex. - See more at: <https://www.buglife.org.uk/campaigns-and-our-work/habitat-projects/making-a-b-line-for-london#sthash.Txz0LLlb.dpuf>



News in Brief

Wildlife-friendly ideas at the RHS Tatton Park Show 2014

The WLGf's Jan Miller reports:

The star of the show gardens were the school gardens. All had been themed around well-loved children's books, and The Very Hungry Caterpillar garden by the Co-operative Academy of Manchester made great use of the famous paintings as a backdrop. This book teaches very young children the days of the week, and the different foods the caterpillar gets through on each day were shown up the garden path.

As a writer on butterfly gardening and specific larval foodplants, I have always been a little uncomfortable that this does indeed lead kids up the garden path, because no caterpillars eat cake, cheese or icecream! Nevertheless, I was happy to see that the borders were stuffed with great nectar plants like *Buddleja*, scabiouses, heleniums and sedums for this time of year – which actually had real butterflies flocking!

Bee pollination improves crop quality and value

A German [study](#) has shown that strawberries pollinated by bees were better quality, produced heavier berries and had a higher market value than those that were wind- or self-pollinated. The authors believe that their findings are transferable to a wide range of crops and “demonstrate bee pollination to be a hitherto underestimated but vital and economically important determinant of fruit quality”.

City-dwelling spiders 'do better', study shows

A [study](#) of Golden Orb-weaving Spiders in Australia has shown that those in cities are growing larger and are better able to reproduce than those in rural areas, reports the journal *Plos One*.

The researchers conjecture that higher temperatures in urban areas and greater availability of prey due to urban lighting could explain the differences in spider size.

Spillover of bees and wasps in an urban–rural interface

A [study](#) in northern Germany has looked into how bees and wasps move between urban and rural habitats at different times of year as levels of pollen and nectar change.

The results showed that, in general, gardens in the urban–rural interface comprised the highest richness of bees and wasps. Bees living in areas where gardens and fields of oil-seed rape are adjacent can increase their populations in both areas, benefiting from the mass-flowering resource in the agricultural habitat as well as the nesting resources from gardens. The study highlights the value of gardens in the urban–rural interface for the biodiversity of functionally important insects.

Plant Heritage publishes A-Z of threatened cultivars

Plant Heritage has published the first definitive record of [threatened cultivars](#) for the UK and Ireland, and found that over two-thirds of cultivars are rare enough to be deemed threatened. This list of 11,243 cultivars will help establish which are of value and need to be conserved, where new National Plant Collections are needed, and what plants can be put into the Plant Guardian scheme.

Plant Heritage compiled the information using plant records held by 819 public gardens including National Plant Collections, RHS Gardens, National and University Botanic Gardens, National Trust, The National Trust for Scotland, The National Trust for Northern Ireland, English Heritage, the National Arboreta, the Eden Project, County Councils and Plant Heritage's own Plant Guardian Scheme.

Butterflies get beefy on gritted roads

A [study](#) in Minnesota found that butterflies whose caterpillars feed on roadside plants that are sodium-rich due to road gritting have increased wing power, larger eyes and more brain power. It reveals how human activity can have unforeseen effects on the development and evolution of wild animals.

Infrastructure Bill - threat to reintroduced species?

The UK Government's new Infrastructure Bill includes some welcome provisions for Species Control Orders to tackle Invasive Non-native Species (INNS) in England and Wales. Unfortunately, as drafted it includes some loopholes that could be misused to control the reintroduction of native or former native species.

The big nature conservation NGOs have been working with Defra to identify amendments that would close these loopholes and not open others. They hope to find a solution before the Bill goes back to the Lords.

French study shows urban areas are bee-rich

French researchers recorded almost a third of the nation's 900 species of wild bees living in towns and cities, a [report](#) in the journal Plos One reveals. The two-year study recorded bee species caught in traps and nets within the Grand Lyon area, collecting 12,872 individual wild bees.

While the overall abundance of bees did decline as the level of urbanisation increased, species richness was at its highest in areas of intermediate (50%) urbanisation. It is thought that the richness of urban habitats for bees and those where rural and urban sites meet is due to high quantities of flowers all year long in a landscape with a high diversity of land cover types and areas which are often warmer than surrounding landscapes. These habitats are also seldom treated with pesticides.

*Newsletter collated by Steve Head & Adrian Thomas
All photos ©Adrian Thomas*