



WILDLIFE GARDENING FORUM

E-newsletter: August 2021

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@WLGForum



Summer's extremes bring in the wildlife

The weather's continued to lurch from one extreme to the other as the summer's rolled in, with early soggy conditions provoking strong grass and meadow growth – and some of the most spectacular wildflower populations our founder, Steve Head, has seen for some time. He was also very surprised to see a small blue butterfly in his Oxfordshire garden for the first time ever. They're local and not very mobile insects that depend on kidney vetch as a foodplant, which isn't yet flourishing in his meadow patches.



Beaver away in the background!

We've been assembling new woody plant pages for the [website](#) – wildlife-friendly garden trees, hedge and climber species – and these will soon be live. Meanwhile we've been compiling information on wildlife-friendly plants to add to the RHS Plants for Pollinators lists and are now up to over 700 species of native and cultivated plants! From this will come a set of website guides to the best cultivated garden plants to match those we have on natives, plus lists for supporting different groups of wildlife.

Page Contents

- 1 [Forum News](#)
- 3 [Making the news](#)
- 6 [Wildlife gardening research](#)
- 9 [Book reviews](#)
- 11 [Citizen science / Health & wellbeing](#)
- 12 [And finally...](#)



Forum news

Forum Facebook is on the up

Our [Facebook group](#) now has an amazing 80,500 members; we'd like to thank the team of moderators who manage this group with untiring devotion. It's a great place to post photos of unidentified wildlife or videos of your garden. In addition, our [Facebook page](#) is full of advice. It's well worth signing up!

Future plans... We're planning a science conference later this year, but it isn't yet clear if it can be face to face or Zoom-based – or even a mix. We very much hope that events can be resumed safely next year with another Wildlife Gardeners' event such as the [one we organised](#) in May 2019.

Forum's YouGov survey results are on the web

Last year we commissioned an Omnibus survey from YouGov to look at attitudes to wildlife gardening in the wider public. The survey was designed and analysed by recent Trustee Adrian Thomas to whom we're very grateful. There have been various surveys in the past, but they've been based on data from gardeners or members of natural history charities, so don't represent a sample of 'ordinary' members of the public. Our survey was based on a statistically random sample of over 2000 people, so gives a much more accurate picture of how Britain feels about wildlife gardening. Key results include:

- About one in six (17%) do 'a lot' for wildlife in their gardens
- 91% of people believe that gardens are important places for wildlife
- 87% like to see and hear wildlife in gardens
- 88% think it is important we do all we can to help wildlife thrive in gardens.

You can read a summary on our website at www.wlgf.org/yougov_survey and download the full report from that page. Other findings showed that women are more engaged with garden wildlife than men, and older people much more than young people. It will be possible to repeat the survey after a few years to see if attitudes have changed.

Polli:Gen Project progress update

Our [Polli:Nation for the Next Generation](#) project in partnership with [Learning through Landscapes](#) and Leicester City Council has got off to a flying start. Over a year, this will introduce 480 children in 24 Leicester Schools to pollinators and their problems, and take practical action to help them in their schools, local communities and gardens. Our role is mainly to advise and create materials for use in identifying key species, and extend practical guidance into gardens, allotments and green space. We also plan to develop a trial garden self-certification scheme towards the end of the project, which could later be rolled out nationally.

We have created an ID guide of pollinator-friendly summer-flowering plants, which was successfully used to support surveys of school grounds in May and June. The WLGf will also be providing expert knowledge on pollinator-friendly, autumn-flowering plants to support surveying in September.

The Wildlife Gardening Forum has recently begun working on the community engagement work of the Polli:Nation for the Next Generation project. We're currently writing a series of 'How-To' guides, which will give clear guidance on methods of encouraging wildlife in gardens, covering a wide range of topics to ensure that there's relevant and useful information for people with all types and sizes of space. Many thanks to the WLGf Trustees and Advisors who have already volunteered to write a 'How-To' guide!

- We'd be very grateful if you could let us have photos of wildlife improvements or features in your gardens, especially if you have any showing work (for example, pond creation) in progress. You can send them to steve@wlgf.org.

Working alongside these guides, we'll be creating a self-certification scheme for private and community gardeners in which people can gain points towards increasing levels of awards as they make their outdoor spaces more wildlife-friendly. The goal is for these spaces to become 'green stepping-stones' supporting and encouraging pollinator populations throughout the city of Leicester. We hope to use this scheme in Leicester as a pilot for a UK-wide wildlife gardening self-certification programme.

Making the news

M&S stung by bee project

With the greatest of good intentions, Marks and Spencer has gained some embarrassing coverage for its project to put 600 old-fashioned beehives on 25 M&S select farms. On their [Bee Blog](#) they say, “honeybees are important pollinators. By introducing British honeybees to M&S Select Farms, we’re supporting local British honey production and our Select Farms to pollinate their crops.”

Unfortunately, helping honey production isn’t the same as helping pollinators or wild plants. Honeybees, important as they are, are only one species of over 250 bees in Britain and globally they pollinate only half of plant species with solitary and bumblebees tackling the rest. Even in the plants they do visit, honeybees are dominant pollinators in only 17.3% of species.

- Read more about it [here](#)

Yet more ‘greenwashing’

Recent work has shown that [honeybees are competitors for food with wild species](#) so while installing hives in farms growing insect pollinated crops is okay, putting them near wildflower areas is potentially disruptive and damaging to the natural pollinators. Swift condemnation was published of the ‘greenwashing, or ‘beewashing’ project from the Bumblebee Conservation Trust, Buglife and Professor Dave Goulson. In fairness, this project is only one part of M&S’s Farming with Nature programme and they admit they’re trying to learn more about how to help wild bees.



DEFRA’s proposal to end the use of peat in horticulture by 2025

The [England Peat Action Plan](#), published by DEFRA on 18 May, is largely about the safeguarding and restoration of wild peatlands, but it also includes a proposal to end the use of peat in the amateur



horticulture sector by 2025. A consultation on the proposals is due later in 2021. The proposals include setting an absolute end date for the use of peat in horticulture, with interim measures to put a point-of-sale surcharge on potting composts that contain peat, and a requirement for manufacturers to show the percentage of peat in their composts. DEFRA aims to work with the governments of the devolved UK nations to produce a UK-wide approach to persuading gardeners to shift away from the use of peat.

BBC Radio 2 teams up with the RHS for the Big Bee Challenge

A new Radio 2 initiative launched this summer to encourage listeners to make some changes to their gardens to draw in bees and other insects. Firstly, a competition took place for children to design a pollinator garden, with the winning design being built at an NHS site used by young people with mental health needs. Secondly, the Big Bee Challenge Weekend on Saturday 31 July and Sunday 1 August saw Radio 2 listeners being encouraged, through on-air tips and advice, to do something, however small, to help encourage bees to their outside space. With the Royal Horticultural Society partnering up with Radio 2, its Senior Horticultural Advisor – and WLGf Trustee – Helen Bostock appeared on Zoe Ball's breakfast show in early July talking about the children's design competition and was also guest on a BBC Sounds podcast, giving expert advice on red mason bees.



EU Court of Justice rejects attempts to overturn pesticide ban

The Court of Justice of the European Union has ruled that the European Commission was right to ban the use of three bee-killing neonicotinoid pesticides. In 2013 the EC decided to ban them from various uses where they believed there was a risk to bees and pollinators. Since then, further evidence of harm to bees resulted in a full outdoor ban on the three pesticides across Europe.

Justice for bees after all

Bayer attempted to overturn the ban and argued that the EC couldn't act to ban uses of pesticides where there was no specific evidence that linked environmental harm to that use. Instead, the Court determined that the EC could base its decisions on an assessment of environmental risk based on any new scientific evidence. Buglife presented arguments to the court in defence of the ban, along



with Pesticides Action Network Europe, Beelife and Greenpeace. However, the court victory doesn't resolve the existing situation in which pesticides continue to be approved with no assessment of their likely impacts on wild bee populations. Buglife CEO Matt Shardlow said, "this is a fantastic result for Europe's bees, it gives the EC more authority to take sweeping action to prevent environmental harm. However...it is of great importance that the UK establishes a transparent risk assessment function for pesticides and introduces new approval tests for wild bees, butterflies and ground beetles – all of which were impacted by the approval of neonicotinoid insecticides."

Homebuilders win award from the RSPB for their wildlife-friendly gardens

Barratt and David Wilson Homes (part of the same company) has been rewarded for designing show home gardens with the local wildlife in mind. The leading housebuilder has been awarded five stars from the Home Builder Federation for the 12th year in a row and is continuing its success by being awarded a bronze certificate by the RSPB for making its show home gardens wildlife friendly. Features of the gardens include a bee box, hedgehog highways, a hedgehog home, a scented garden, and a native hedgerow. Barratt and David Wilson Homes has been partnered with the RSPB since 2014. The agreement is the first of its kind in the UK and aims to boost natural habitats at developments across the country.



Nature-based UK solutions for climate and biodiversity

The British Ecological Society has just published an [extremely important review](#) of the potential for nature-based solutions (NbS) to mitigate climate change impact while benefitting people and biodiversity in the UK. At 190 pages and 660+ references in the main sections alone, it's a big read, but a valuable summary.

The report discusses eight basic ecosystems (such as woodlands, arable systems and freshwater systems), and includes a large section with 76 useful references on the built or urban environment. This is a difficult area to improve because of the multiple stakeholders involved, the multidisciplinary nature of challenges, and the lack of coordination.

NbS opportunities include more use of sustainable urban drainage systems, green roofs, spreading crushed concrete on brownfield sites to absorb carbon dioxide and benefit biodiversity, more urban green spaces and more street trees. Special efforts in greening should be made in socio-economically deprived areas. Major benefits include better flood control, reduction of peak temperatures, and better human mental wellbeing.

It's unfortunate that, while mention is made of community gardens, the existing value of private gardens, which cover one quarter of the area of a typical city (and half its green space) is never mentioned. Preserving these spaces against infill building and ecological decline is a key priority, and there are major opportunities for garden expansion in new-builds, and for better informed management of all gardens and urban parks.



NATURE-BASED SOLUTIONS FOR
CLIMATE CHANGE IN THE UK:

Wildlife gardening research

Caffeine boosts bumblebee health

As well as vital sugar for energy, plant nectar contains various other compounds including caffeine. Researchers from Royal Holloway, University of London and Kew Gardens found the nectar of sainfoin (*Onobrychis vicifolia*) to contain caffeine. Caffeine was also observed to reduce the likelihood and severity of *Nosema bombi*, an emerging fungal disease of bumblebees – there were fewer infected bees within a colony and those which did contract the disease had fewer acute infections. The authors of the study conclude that cultivated areas such as pollinator strips in agricultural land (and indeed gardens), could be tailored to include plants that will actively help to prevent diseases in bumblebees and other pollinators. Read more about the research [here](#).

Research shows robotic lawnmowers may harm hedgehogs

[Initial studies done](#) by the Wildlife Conservation Unit at the University of Oxford suggest that certain product features of robotic lawnmowers could be a danger to hedgehogs. Tests performed on hedgehog cadavers picked up from animal sanctuaries, which were sadly too ill to save, showed that none of the models of robotic lawnmower detected the dead hedgehogs when turned on and either nudged the animals or, in some cases, badly mutilated them. The varying degrees of harm inflicted were noteworthy, however, with the best-case scenario in using some models of robotic lawnmower proposed to involve bruising, the worst case – serious injury and death. The research has come after calls to identify and investigate the factors responsible for hedgehog decline and improve conservation initiatives directed at this species. Future collaboration has been requested by the Unit with manufacturers of these lawnmowers to help improve hedgehog safety.



Even remote blue tits rely on garden bird food

Jack Shutt from Manchester Metropolitan University has shown that in Scotland, at least, blue tits living up to 1.4km away from houses had been taking food from garden feeders. He and his colleagues analysed faecal material from along a 220km transect, discovering bird seed residues in more than half the samples and peanuts in 49%. No natural prey species were found in more than 34% of samples. The further away from houses the lower the consumption rates, but these were still high at several hundred metres distance. Access to supplementary food was linked to a four-fold increase in breeding density, and egg laying nearly a week earlier. This sounds great for the blue tits, but the work raises concerns that woodland species using urban feeders are gaining an advantage on other species that do not, some of which are likely to be in decline. Read more [here](#).



Micro-evolution in the urban environment

Still on the subject of tits, but great tits (*Parus major*) this time, [evidence is accruing](#) from a Europe-wide team of scientists of their genetic adaptations to the urban environment. They looked for genetic 'selective sweeps', which are processes through which a useful mutation in a gene comes to dominate a population through natural selection, and as a side effect eliminates variation among genes situated close to it on the chromosomes. These other genes can be considered hitchhikers on the success of the first.

The study found clear evidence of pervasive selective sweeps in urban great tits, especially of recent and evolving examples. In general, the selected genes were linked to cognitive abilities and beneficial changes in behaviour, such as increased serotonin production, reducing the impact of stress. The changes were seen in urban populations across all of Europe.



Biodiversity – Doh?

Briony Norton and colleagues from Derby University [have revealed](#) that many gardeners don't understand what is meant by 'biodiversity'. They asked more than 2000 people from a wide spectrum of Derby residents to respond to the question, '*how would you define 'biodiversity'? Please give your best guess. If you haven't heard of the term, please write 'don't know'*'. The 255 answers were carefully analysed for word use and consistent themes. Seventy eight people said they didn't know what the word meant. Nearly 80% of people providing a definition mentioned variety of species. Twenty eight mentioned co-existence of species, but many confused biodiversity with conservation and/or habitats.

We've got a lot to do...

Tertiary level educated people were more likely to offer definitions and to give more accurate descriptions, and members of environmental organisations were also rather better informed and used more formal terms like 'species'. Regrettably there was little detectable relationship between the relevance of the formal definitions provided and the respondents' wildlife gardening activity. It serves as a strong reminder to those of us in the Wildlife Gardening Forum who have 'seen the light' that we've still got a long way to go to get most gardeners up to speed.

Why did the bee cross the road?

Crossing roads is a challenge for humans, and it appears that it is for bees as well. Researchers at the University of Michigan added transferrable paint to roadside flowers of tickseed and bergamot and investigated how often paint on one side of the road appeared on flowers on the other side. Not only were fewer transfers made between flowers on opposite sides than on the same side, but the effect was greater for tickseed than bergamot. Because tickseed is visited by smaller bees than bergamot, it looks like roads are a bigger barrier for smaller bee species. The width of the roads was a better predictor of the effect than the volume of traffic flow.

[The scientists conclude](#) that roads are a barrier for pollinators, and measures to make it safer to cross the road for humans should be extended to insects as well.



Helping bees in mass-flowering crops

In typical arable rotations bees experience one year of plenty with pollen and nectar rich crops, like peas or oil-seed rape, alternating with three or more years of famine, when the fields are full of cereals. This effect is particularly problematic in landscapes dominated by very large monoculture fields. How can the numbers of bees keep up in the lean years to be able to benefit when the good times come back? Scientists in several countries, including England, cooperated in [a new study](#) to see how field margins and boundaries could help.

Where there were more and larger stable boundary features such as flower-rich field margins, populations of ground-nesting bumblebees were larger and more stable while solitary bee numbers were larger but still fluctuated. Not only did this benefit the bees, but it meant that when pollination services were needed for the crops, there were more bees available to provide them.

The relevance for wildlife gardeners is that if you live in a rural setting surrounded by fields, your flower-rich gardens will provide a similar service for bees and farmers alike.

Big bumblebees start work earlier in the morning

We've long known that big hairy bumblebees can be more active earlier in the cold spring than smaller, less well-insulated species. It's now clear that even within bumblebee colonies, behaviour is subtly related to size. Exeter University [researchers have shown](#) that large individuals of the common buff-tailed bumblebee, *Bombus terrestris*, left the nest earlier and in darker conditions than their smaller sisters.

Big bumbles have big eyes, with more facets, and can see slightly better in low light conditions when smaller bees would have difficulty navigating. Clearly this allows more time for foraging and so will increase the resources available to the colony. However, smaller bees live longer, especially under low resource conditions, and rearing big individuals will be more costly for the colony, so the cost benefits of size may vary with the conditions at the time.



Trees, grass and shade can really help cool cities

Detailed computer simulations of 14 square miles of Columbus, Ohio, have provided evidence of the importance of trees and areas of shade for keeping temperatures bearable in cities. With the current climate change-induced heatwaves in the USA and Canada, this work is clearly important. The well-known 'urban heat island effect' leads to all big cities enjoying warmer and often frost-free winter conditions compared to nearby countryside, but in summer the large areas of walls and hard surfaces absorb and re-radiate heat to an alarming extent.



Using the simulations, coupled with satellite infra-red imagery, [scientists in Ohio State University showed](#) that a 1% increase in building area could raise temperatures by 3% locally, but that their shade significantly cooled adjacent areas. Since buildings have this two-way effect, other factors are needed for a real improvement; water, grassy areas and trees are the answer. Shaded grassy areas were very effective, while the study showed that when newly planted trees in the area reach maturity, they'll drop local temperatures by nearly 2°C, and adding only a few more trees would

drop the temperature even further. While this isn't unexpected, planting a few trees on the chance they might eventually help is a risky long-term experiment, while being able to model the real world gives a lot more confidence to invest.

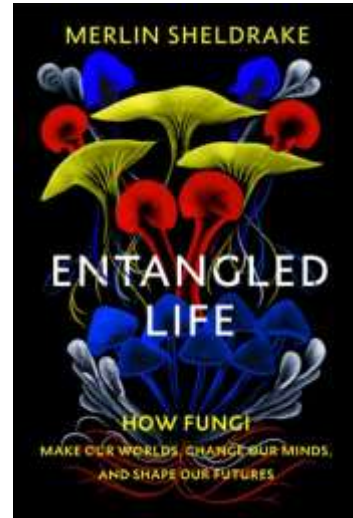
Book reviews

Entangled Life: How fungi make our worlds, change our minds and shape our futures

by Merlin Sheldrake (The Bodley Head, 2020) *Reviewed by Steve Head*

It's not all that often that we come across a book that can completely alter our perception of how the world works. *Entangled Life* is one of these.

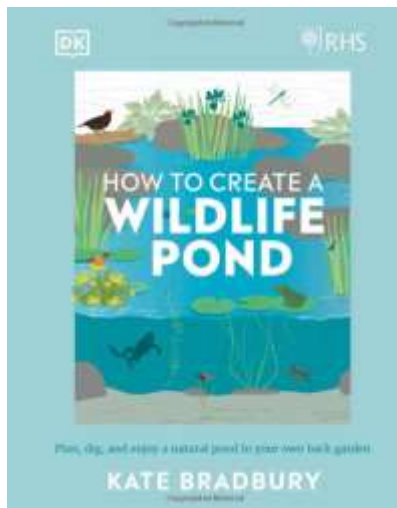
Merlin Sheldrake studied fungal networks in Panama and completed his PhD in tropical ecology at Cambridge, and this book shows how widely and deeply he's read about the subject. This is a big book in every respect, over 350 pages, with 83 devoted to further end notes, references and bibliography. As a gifted writer and musician, he brings fluidity of style and poetry to his rigorously scientific account of the nature, evolution, pharmacology, uses and absolute pervasiveness of fungi in the world. He is particularly strong on the nature and ecological importance of mycelial networks and the way they operate together with most green plants, including forest trees. It's easy reading, and best of all, begins to open our eyes to the mass of fungi; invisible but everywhere, which support us and all life on this planet.



How to create a wildlife pond, by Kate Bradbury

(RHS/ Dorling Kindersley, 2021) *Reviewed by Steve Head*

Kate Bradbury takes us through all the stages of making a new pond, from its siting, design and surroundings, throwing in slightly unnecessary but encouraging tidbits about other garden habitats,



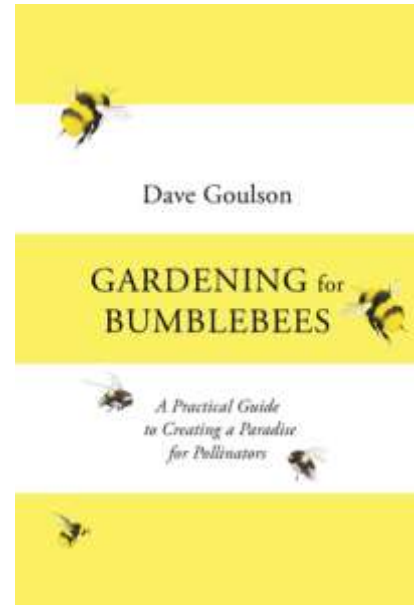
through to actual construction. She is sound on basic wildlife pond design, although I wouldn't necessarily add a layer of subsoil before filling. The chapter on making formal ponds I'd have omitted in a book about wildlife ponds, but sections on container and trough ponds could be very helpful to people with small gardens.

The book briefly covers suitable plants within the usual categories, including some such as *Potamogeton* species that many people may find difficult to grow. The coverage of amphibians, reptiles and mammals is good, but that of invertebrates seems rather thin and patchy, not illustrating any snails for example, but showing a tardigrade, which isn't an important pond dweller and requires a microscope to see it. Unusually, there are sections covering pondlife through the seasons, which contain features on individual favoured species.

This is a suitable book to give someone contemplating installing a pond and will certainly provide inspiration. For the naturalist, other books such as the *Freshwater Biological Association's Guide to Freshwater Invertebrates* and the magisterial – but out of print – *Collins Field Guide to Freshwater Life* are highly recommended.

Gardening for Bumblebees: A Practical Guide to Making a Paradise for Pollinators, by Dave Goulson
(Square Peg, 2021) Reviewed by Marc Carlton

Dave Goulson is a well-known academic and author who helped found the Bumblebee Conservation Trust in the early 2000s. He already has a series of entertaining books under his belt, and here he provides us with a highly readable manual on how to make any garden really work for pollinating insects. Despite the title, this book isn't just about bumblebees – it covers all types of pollinating insects, even those that rarely get a mention in wildlife gardening books such as skippers and pollen beetles. I suspect that concentrating on bumblebees in the title is partly a strategy to get people to buy this book; a book about cuddly bumblebees sounds more palatable to (possibly unconvinced) gardeners than a book about 'insects', a word that some still see as synonymous with 'pests'. The greater part of the book is actually about plants. Goulson assesses the value of many common garden flowers and shrubs based on his experience and gives them star ratings for 'pollinator friendliness'. Subjective, of course, but still invaluable advice. He also provides a clear and informative section about bee houses, bumblebee nests and other paraphernalia, recognising that many of those sold in garden centres and online are defective, but explaining what actually does work and how you can make them yourself. All in all, this is a must-read.



BQ: Bees and Pollinators Quarterly
(Square Peg, 2021) Reviewed by Marc Carlton



A new glossy pollinator magazine hit the newsstands recently; a bold attempt to serve the growing interest in pollinators among gardeners and the public in general. The first edition leads with articles about farming and pesticides by Professor Dave Goulson and about wildflower-rich lawns by Trevor Dines of the charity Plantlife. It also includes articles about honeybees and beekeeping, and beekeepers are clearly part of its target audience. Herein lies a paradox, because it's known that where forage resources are limited, managed honeybees may out-compete wild bees. Your reviewer feels that the publishers will have to manage something of a balancing act here, meeting the needs of readers interested in supporting wild pollinators and also those interested in honeybees and beekeeping. It will be interesting to see how this



magazine develops. It's available from high street newsagents or from <https://bq-mag.com>

Wildlife gardening and citizen science

New pollinator website

The UK Centre for Ecology and Hydrology (CEH) has launched a new website for its Pollinator Monitoring Scheme (PoMS). Anyone can participate in the scheme and help collect valuable information about pollinating insect populations by conducting 'Flower-Insect Timed Counts' (FIT Counts); participants record all the pollinators visiting a target flower in a 10-minute period. FIT Counts can be carried out anywhere there are flowers including parks, gardens and natural habitat. The [new website](#) includes information, guides and the forms required to take part in PoMS.

Health and wellbeing

Discovering how nature makes children feel happy

[An intriguing study](#) has used children's drawings of the places where they feel happy and safe to explore what lies behind these emotions. The authors worked with seven- and eight-year-old English children from relatively deprived backgrounds. They were first invited to imagine and then draw their happy places – a way of expressing themselves not limited by verbal or writing ability – then moved on to discussing in small groups what made them feel happy.

Happy place

Half the children incorporated images of nature and outdoor spaces in their drawings, and many of them included a tree as part of their happy place, commenting, 'trees give us shelter,' and 'when it rains we go under the trees'. They were intellectually aware of responsibility to nature, writing, 'we need to plant more trees, plants and flowers...to protect our environment.'



Interestingly, the nature images tended to form a backdrop to the pictures drawn rather than the main component, suggesting their sense of nature is implicit and perhaps taken for granted. Using pictures to explore happy places seems to be a way of helping children reveal the importance of nature to them, which can often be forgotten when writing or talking about where they feel happy and safe.

And finally...

Rare orchid found on rooftop garden of city bank

A rare orchid, previously thought extinct in the UK, has appeared on the 11th floor rooftop garden of a city investment bank. The small-flowered tongue-orchid, *Serapias parviflora*, has not been sighted in Britain since 1989 when a colony was found on Rame Head in Cornwall.

The chance discovery of 15 of the orchids on the London rooftop garden of Nomura International, a Japanese bank, represents the entire known wild British population of the species after the Cornish population went extinct as a result of land mismanagement in 2009. Widely found in the Mediterranean Basin and the Atlantic coast of France, Spain and Portugal, experts are still at a loss as to how the plant made its way into the elevated garden in the capital's central business district. It's thought the orchid either came on the sedum roof mat laid 10 years ago or seeds may have been deposited via winds from the Mediterranean.

Mike Waller, an ecologist, said: "This is clear evidence that with patience and dedication, even the most unlikely places can become havens for some of our rarest wildlife."



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 Marc Carlton, Judith Conroy, Steve Head, and Ken Thompson.
All photos from Wikicommons unless stated.

