WILDLIFE GARDENING FORUM

NEWSLETTER

Spring 2015

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 (it's free!) 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.

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.

Newsletter compiled by Dr Stephen Head and Adrian Thomas. All photos by Adrian Thomas unless stated.

News from the Forum

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Wildlife Gardening Research

Grass-free lawns support more wildlife

Regular attendees at the Wildlife Gardening Forum's conferences will remember a talk by Lionel Smith from Reading University in June 2012 about his research into grass-free flowering lawns. Lionel's work has now been published (Adding ecological value to the urban lawnscape. Insect abundance and diversity in grass-free lawns. Biodiversity & Conservation 24:47–62. Smith, Broyles, Larzleer & Fellowes).

Lawns are the commonest feature of urban greenspace worldwide but heavy mowing regimes and the use of fertilisers and herbicides mean that many are poor for wildlife.

By using native and non-native plants other than grasses that are tolerant of mowing, the research has shown that numbers and diversity can increase. Given that the flower-rich lawns required much less mowing and that the grass lawns used in the research were mown at the same rate to allow comparison, it is likely that a grass lawn mown more intensively would have had even less wildlife.

They research also discovered that the types of insects differed between grass lawns and flowering lawns.

Parakeets: enough to put you off your food!

Research in London by scientists at Imperial College has revealed the impacts on foraging by native birds when in the presence of non-native rose-ringed parakeets.

The results showed that native species had reduced feeding rates and were more vigilant when in the presence of parakeets, although in areas where parakeets are now regular, the effect was less pronounced.

The study used the great spotted woodpecker as a control, which is similar in size and dominant behaviour to the parakeet.

The results suggest that non-native species can have complex and subtle impacts on native fauna including simply through their presence near resources.

The full text is available here.

Urban Pollinators Study publishes first set of results

Forum members Dr Katherine Baldock and Dr Mark Goddard have had the first paper from the Urban Pollinators Project published in the prestigious Proceedings of the Royal Society B. The paper is called 'Where is the UK's pollinator biodiversity? The importance of urban areas for flower-visiting insects' (Baldock & Goddard et al.).

The following is based on their layman's summary, with the full report available here.

Rationale: The study asked where pollinators are found in the UK by comparing the number of insects visiting flowers and the number of pollinator species found among three landscapes: urban areas, farmland and nature reserves. This was the first systematic survey of insect pollinators in the three main landscape types in the UK, comparing plant-pollinator communities.

Three sites - one urban, one farmland and one nature reserve - were sampled in or close to each of 12 cities located throughout the UK (Bristol, Cardiff, Dundee, Edinburgh, Glasgow, Kingston-upon-Hull, Leeds, London, Reading, Sheffield, Southampton, Swindon), with sampling at monthly intervals between May and September 2011.

Summary of results Approximately 7000 flower-visiting insects were sampled; the majority (95%) were identified to species level. There was no overall difference in flower-visitor abundance or species richness between the three landscape types.

Bees: However, the richness of bee species (bumblebees, honeybees and solitary bees combined) was statistically higher in cities than in farmland. Bee abundance, however, did not differ among the three landscape types.

Flies: The abundance of *Diptera* (flies, including hoverflies) was statistically higher in farmland and nature reserves than in cities, although there were no differences in species richness.

There was a higher abundance of hoverflies in farmland and nature reserve sites than in cities, although hoverfly species richness did not differ among the three landscape types.

Rare insects: 11 pollinator species classified as nationally rare or scarce were found, four in cities. When rarity categories were assigned at a national scale, rare species were more often found in nature

reserves and farmlands than in cities. When rarity categories were assigned at a local scale, there were no statistical differences in the number of rare species recorded among landscape types.

What flowers do insects visit? Flower-visitor species in cities visited more plant species on average than those in farmland or nature reserves but those in cities made use of a smaller fraction of the available flowering plant species. There were more plant species in cities than in farmlands and nature reserves because of the many non-native garden plants in cities, but there was no difference in the number of native plant species between the three landscape types. Insects made similar numbers of visits to native and non-native plant species in cities; in contrast, almost all pollinators were recorded on native plant species in farmlands and nature reserves.

Conclusions: The findings of this nationwide study suggest that towns and cities contain suitable habitats for bees, but that farmland and nature reserves are also important for the other insect pollinators, particularly hoverflies and other flies. The findings have important implications for pollinator conservation as urban areas in the UK continue to increase in size and offer incentives for policy makers to improve the quality of existing green spaces in urban areas, as urban habitats can contain remarkably high pollinator species richness. We recommend that improving the value of urban areas for pollinators should be part of any national strategy to conserve and restore pollinators.

Diseased commercial bees threaten wild bees

Many people will be unaware that many of the bumblebees and honeybees in the UK are imported commercially to help pollinate crops such as tomatoes, sweet peppers and oilseed rape.

A desk study by the University of Exeter into existing research has highlighted the risk of fast-evolving viruses carried by commercial bees 'jumping' to wild pollinators, placing biodiversity and food security at risk.

For example, the Varroa mite - which has caused such problems in commercial honeybee colonies is - helps spread viral diseases such as the Deformed Wing Virus, whose prevalence in commercial honeybees has been linked to its existence in wild bumblebees.

Many wild pollinators, which are themselves important for food production, have themselves suffered declines in recent years due to habitat destruction and pesticide use.

Dr Lena Wilfert from the Centre for Ecology and Conservation in Biosciences at the University of Exeter's Penryn Campus in Cornwall said: "Our study highlights the importance of preventing the release of diseased commercial pollinators into the wild. The diseases carried by commercial species affect a wide range of wild pollinators but their spread can be avoided by improved monitoring and management practices."

The study was funded by the Royal Society and the Natural Environment Research Council and was published here in the Journal of Applied Ecology.

Volunteer-based surveys help unpick bird declines

As landscapes in Britain and Europe become ever more intensively managed, it is important to understand the drivers for population change in birds.

In a complex piece of statistical analysis by the BTO, they used data from long running volunteer-based surveys to examine which factors influence bird declines the most.

The results showed that, in general, it is the number of chicks fledging and surviving to breeding age that is key in those species that are declining; in other words, not enough make it to then breed. Conservation work focused on helping populations survive over the winter may well, therefore, be of greatest help.

The results also show the value of well-designed, long-running volunteer-based wildlife surveys.

More fears about neonicotinoids

A study, by Douglas, Rohr and Tooker and published in the Journal of Applied Ecology shows how neonicotinoid insectcides can travel through a food chain, affecting non-target species.

The laboratory experiment investigated the neonicotinoid thiamethoxam which is applied as a seed-coating on soya seed. Neonicotinoids are the most widely used insecticides world-wide, but their fate in the environment remains unclear, as does their potential to influence non-target species and the roles they play in agroecosystems.

Although a pest slug was unaffected, the toxins it ingested were passed, at least in part, to a predatory beetle, impairing or killing over 60% of them. The reduction in pest predators actually then had the effect of reducing yield of the crop. Whereas it might be assumed that toxins applied as seed coating target herbivorous pests, the findings suggest that the knock-on impacts may be much wider and that food-chain impacts need to be considered.

Wildlife Gardening and Citizen Science

Become a Dragon Finder

Contributed by Alan Shearman, Dragon Finder Project Administrator

Wildlife conservation charity Froglife has launched a new free 'Dragon Finder' app for smartphones which allows users to identify and report sightings of amphibians and reptiles across the United Kingdom.

The app is both fun and educational, but also of scientific importance. The records submitted will be used by Froglife and other conservation organisations to help monitor the UK's amphibian and reptile population and distribution, and to target conservation effort more effectively in the future.

The app is loaded with easy to use features to help the user identify the different amphibian and reptile species they might encounter, including a step by step identification key, photos and calls.

The app has been created as part of Froglife's London Dragon Finder Project - funded by the Heritage Lottery Fund. The project engages with thousands of people across the capital each year though surveying, educational activities, and by improving habitats for amphibians and reptiles across London's green spaces.

The Dragon Finder app is available on iPhone and Android, with a mobile website available for other devices. www.froglife.org/dragonfinder/app/

A prickle of hedgehogs and a scurry of squirrels among garden wildlife secrets

Sixty-five per cent of RSPB Big Garden Birdwatch participants reported seeing a hedgehog snuffling around their garden at some point in the year. But over half revealed they'd never set eyes on a slow worm or grass snake slithering

Wildlife Gardening Policy

London's Pollinators: creating a buzz in the capital

Contributed by Ross Compton, Capital Bee

A new report, compiled by Capital Bee, has drawn together policy and practice from national and London levels to explore how to ensure that pollinators can thrive in London.

It looks at how to manage and improve land use in the capital to address health, conservation, pollution and environmental management. It also explores how these could contribute to helping to create a more colourful city in which both people and pollinators can thrive.

Existing opportunities for making significant progress are highlighted in the report, as well as areas in need of more action.

The report asks questions such as

- how to best monitor pollinator populations
- the implications of the recent surge in the number of managed colonies of bees
- how to protect and enhance the beneficial habitats that already exist
- and how to realise the potential to create new habitat and link them into a larger network.

In compiling the report, Capital Bee has drawn on the knowledge and expertise of a range of organisations from across the capital.

Wildlife Gardening in Practice

The Ness Bee Hotel

Contributed by Tim Baxter, Carl Clee and Phil Putwain, Ness Botanic Gardens, Cheshire

Ness has recently installed an impressive oak-framed 'bee hotel' in the lower area of the gardens overlooking the Dee estuary. This is part of the Wilder-Ness project that aims to manage the area for the benefit of wildlife.

The hotel will hopefully provide a home for various species of solitary bee (and other insects) that use tubular holes. By providing nesting habitat combined with pollen and nectar resources found in the gardens, we can increase the numbers of these important insects.

Positive feedback at University Hospital, Coventry

Contributed by Simon Phelps, Warwickshire Wildlife Trust

Volunteers, school children, hospital staff and visitors have all commented on how much they NOW enjoy the nature reserve created at University by Warwickshire Wildlife Trust in 2013.

Between January and October 2013, Warwickshire Wildlife Trust was commissioned by the Centre for Sustainable Healthcare to deliver the Outer Space project at the University Hospital site in Coventry.

The aim of the project was to develop the Jubilee Nature Reserve on the Hospital site, improving it for people and wildlife and encouraging people to use it. The project was founded on the basis that exposure to green spaces is good for your health and the project aimed to use the reserve to make the built environment of the hospital a healthier place to be.

To develop the reserve, the project involved local residents, primary and secondary school children, , university students and corporate volunteers from a diverse range of backgrounds to install signs, carry out habitat management and generally make the place a more attractive area to visit.

The funding had been awarded to the Centre for Sustainable Healthcare through Natural England's Access to Nature Big Lottery fund.

Do wildlife gardening and chickens go together

Blogger Jeff Ollerton, who himself keeps six chickens in his garden, raised the important point in one of his winter blogs as to whether the oft-quoted principle that 'chickens make excellent pest controllers' belies the fact that they eat pretty much all the beneficial invertebrates (and some vertebates) too.

For that reason, Jeff doesn't allow his hens free-range on his vegetable patch so as to keep the soil's fauna intact. His belief it that allowing your chickens to feed freely on these animals will significantly reduce your soil biodiversity.

Among the Wildlife Gardening Forum trustees, the consensus is pretty much the same. That is not to damn chickens and the valuable role they play in providing us with food (and amusement). However, the assumption should be that free-range chickens are not good for wildlife in the garden, except perhaps for House Sparrows and rodents coming to spilt grain.

It is another area for which good scientific study would be beneficial, however.

Wildlife Gardening campaigns

Plantlife encourages more wildflower growing in gardens

A gentle new campaign by the charity Plantlife, called The Wildflower Garden, aims to "celebrate the rare and common native flowers we probably already grow, introduce you to a few new ones and discover the fascinating stories behind them as British wild flowers".

Fronted by Trevor Dines, Botanical Specialist, the webpages include advice on collecting seed and growing wildflowers.

Greening Grey Britain

The RHS has launched a new campaign and report, urging gardeners to "tackle the growing number of grey spaces spreading across our comunities and transform them into beautiful green places".

The report says that 4.5 million front gardens are now totally paved, three times as many as a decade ago. Reversing this trend would have benefits for mental and physical health, pollution, reducing heat-stress and flooding, as well as looking more attractive and helping wildlife.

It calls on householders to "turn away from gravel, paving and concrete and brighten up the front of their houses with plants, shrubbery and grass for the public good".

The RHS has set itself a target of 6000 grey spaces turned green by 2017, including work with. community groups and schools

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News in Brief

2014 confirmed as UK's warmest year

Last year was the UK's warmest since records began in 1910, the Met Office has said.
It was also the warmest year in the Central England Temperature series, which dates back to 1659.

The UK's mean temperature for the year was 9.9C; that was 0.2 degrees higher than the previous record set in 2006.

Eight of the UK's top ten warmest years have now occurred since 2002.

2014 was also the UK's fourth wettest year. Five of the UK's top six wettest years have occurred since 2000.

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Blooming January

An exceptional 15% of Britain's wild flowers were in bloom somewhere in the country at New Year this year, as revealed by The Botanical Society of Britain and Ireland's annual survey.

More than 300 species were found to be in bloom. The most commonly recorded species were Daisy and Dandelion.

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Cats – as bad as aphids!

A survey by BBC Gardeners World magazine found that cats are now more hated that wasps and foxes, with 34 per cent of gardeners saying they are the worst garden menaces. They now rank sixth in the overall list of garden pests.

Cats were also spotted with prey in gardens by 38% of respondents.

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1 human = 5 trees

There are nearly five trees for every person in England and Wales according to the National Tree Map, produced by aerial survey firm Bluesky. The 280 million trees for a population of 57 million cover nearly 8,000 square miles - an area the size of Yorkshire, Lancashire and Cumbria combined. The most leafy area is Surrey because of its large, mature gardens.

More dire warnings over UK trees

A report in the journal Forestry highlights the ongoing risks to UK trees thank to a wave of new diseases brought by climate change and the global trade in plants. Species such as oak, ash, Scots pine, birch and juniper are all at risk from a range of pathogens, some of which are already in the country. A very useful pdf highlights some of the developments in 2014.

Are aliens all bad?

In his new book, *The New Wild*, the environmental journalist Fred Pearce makes the case that non-native species are rarely as bad as they are made out, and in many cases may actually be the salvation for degraded ecosystems.

While acknowledging that there are a few horror stories, he shows that most alien species actually are quite benign, or just die out anyway. He argues that we have changed the planet so much that any notion of recreating the pristine ecosystems that once existed is just not possible, and that we should embrace the alien species and the 'novel' ecosystems they create.

New York state to dim the lights for birds

The state of New York will turn off non essential lights in state run buildings to help birds navigate their migratory routes in spring and summer.
