

WILDLIFE GARDENING FORUM NEWSLETTER January 2014

FOREWORD

I am again delighted to acknowledge the help of Anna Parry in putting together this newsletter. The fact it is rather a long time since the last one came out is no reflection on her, but the result of my level of work load. Please do send in your stories and news to WLGF@STEPHENMHEAD.COM for the next issues.

Steve Head, Forum Coordinator

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Wildlife 'Thrived' In 2013 After Hot Summer

Edited from BBC News

Matthew Oates, from the National Trust, has marked 2013 as "one of the most remarkable wildlife years in living memory". The hot summer in the UK provided a much-needed boost for wildlife, with butterflies, moths and grasshoppers all thriving, and also led to an explosion of berries, nuts and seeds.

Many insects had been scarce in 2012 because of poor weather but sun-loving insects, such as the long-tailed blue butterfly (below), fared well with bees and crickets among other winners. The distinctive tree bumblebee (top left) - which only began to colonise in the UK 12 years ago - was seen north of Hadrian's Wall for the first time.

Birders also had a "deeply memorable" year with an abundance of species, including an irruption of waxwings (top centre). The waxwing is a winter-visitor from Scandinavia and the higher numbers seen in 2013 are said to herald the onset of icy weather.

There was certainly a cold, late spring, which meant that, although snowdrops, bluebells and orchids benefited from a long flowering season, badgers and hedgehogs did not have their usual quantity of worms, and some seabirds died from starvation. The extended cold period was also a difficult time for breeding frogs and many mammals coming out of hibernation. Garden aphids, slugs and seven-spot ladybirds (top right) were amongst others to fall prey of the cold start, including the birds which feed on them. However, the dramatic reduction in slug numbers was something many gardeners are unlikely to regret.

Matthew Oates said:

"We were more than overdue a good summer and eventually we got a real cracker, although it kicked in after the slowest of possible starts. The way our butterflies and other sun-loving insects bounced back in July was utterly amazing, showing nature's powers of recovery at their best. Many birds and mammals had also recovered well from the cold spring.



Importantly, we have seen more winners than losers in our wildlife year, which is a tremendous result considering where we were last year. For most specialist naturalists, such as birders and butterfliers, it became deeply memorable because naturalists, like many other people, collect memories."

Kent Wildlife Gardening Awards

Author: Maureen Rainey

New volunteer wildlife gardening advisors, Liz & Helen, were in for a treat when they visited John & Angie Hammond in their 1950s bungalow on the outskirts of Whitfield near Dover. To quote Helen "you travel into the back garden through an arbour covered with Clematis, Akebia & Ivy (which is full of birds' nests) & mixed planting around the side of the house. Then you are in a very special place".

The garden has been developed by John & Angie over 30 years, not only with wildlife in mind but also as a place for family & growing food. Angie says "I enjoy working in the garden but like to have the time to enjoy it as well". This couple certainly have the balance right.

The garden is surrounded by mature trees & shrubs, not all native because they enjoy the mix of year round colour & form provided by the evergreens, which also create good ground cover for the wildlife. There is something in flower at all times of the year & the centre piece of the back garden is a small meadow cut through with interesting shaped paths.



John finds time to enjoy a relaxing break with Grandson Scott. Tucked behind the trellis are water butts & compost bins

The thing that impressed us most was the couple's attitude towards recycling. The Hammonds were chosen by our sponsors, Southern Water, as winners of the best water wise wildlife garden in 2013, but in addition to water they aim to reuse & recycle as much as they can. Here a just a few examples:

- John has converted an old rotivator into a shredder so that woody prunings can be
 made into useful paths around the raised vegetable beds, which are made out of
 recycled timber.
- An old washing machine drum has been converted into an incinerator.
- The garden contains 3 Hazel trees which are coppiced on a 3 year rotation to provide bean poles.
- All hard landscaping is from recycled materials.
- An ingenious hedgehog feeding station has been made out of old pallets & designed to keep out the local cats.
- The compost bins are constructed of old pallets with re-used mesh fencing at the front.
- Beds are frequently mulched with homemade compost to reduce water loss.

- The garden contains numerous water butts which are linked to provide optimum storage capacity. In addition, a disused septic tank has been converted for water storage. This makes the garden self sufficient in water, apart from periods of extreme drought when they have installed a pump to the bath water waste pipe.
- Both ponds are fed by rainwater from roof drainage.



• When the meadow is cut the hay is given to a nearby horse owner who in return provides manure for the veg beds.

John is even considering writing a book entitled "50 things you can build with pallets."

Scottish Dragon Finder

Author: Kathy Wormald





Froglife's strapline is *Leaping forward for reptiles and amphibians* and their new project in Scotland will certainly be living up to this. The Scottish Dragon Finder project has been awarded a grant of £442,400 from Heritage Lottery Fund contributing towards a total budget of £602,851 for on the ground reptile and amphibian conservation action. This exciting project will be working with 50 primary schools and 70 youth groups with a road show visiting 50 venues across the country.



Habitat improvement work will be undertaken on 63 publicly owned sites across 14 of Scotland's local authority areas. In total it is estimated that the project will be reaching 28,000 people from across 30 council areas. An amazing 240 partners will be involved in the project, a substantial number of them are not nature conservation organisations hence Froglife is living up to its reputation of attracting new audiences. The project will also be offering two 18 month paid trainee placements. These placements will be aimed at individuals who have a passion for wildlife conservation but have not had the opportunity to gain formal qualifications.

Although the project started in January there will be an official launch at the Scottish Parliament on 19th March 2014. Anyone interested in attending the launch or wishing to more about the project should contact either wicky.ogilvy@froglife.org or james.stead@froglife.org.

Ken Thompson Socks It To The RHS

Author: Steve Head



Forum Trustee Dr Ken Thompson gave the third RHS Annual Macleod Lecture in November this year, on the subject of "Biological Invasions – the spread of pests and diseases, and their impact on other organisms".

Everyone who knows Ken would expect that he would take an evidence-based, myth busting approach to the issues, and we were not disappointed.

Ken started by acknowledging that the world *is* being changed by migrating organisms, but perhaps not so much by the "usual suspects" as much as by less conspicuous migrants, such as European earthworms in the USA¹, or the mycorrhizal fungi transplanted round the world in soil from Europe².

However, the "Daily Mail" (e.g. general shock-horror) perception is that invasions by nonnative species are one of the greatest threats to global biodiversity, and many biologists do feel this is true. To summarise:

- 1. We are all doomed
- 2. The primary cause is human-facilitated alien invasions
- 3. It's all the fault of the gardeners

Ken questions - is this really a balanced viewpoint? Are ecosystems worldwide dominated by rampaging introduced plant species? A recent paper by Jennifer Firn and a number of colleagues³ looked at how the abundance of plant species introduced abroad relates to their abundance on home territory. Rather surprisingly, it appears that the species concerned showed similar patterns of abundance in their non-native communities as they did in their "right" communities at home. In fact native abundance is a fair predictor of likely abundance when introduced.

Another recent study by Montserrat Vila and colleagues⁴ carefully analysed nearly 200 papers discussing impacts of alien plants on communities, and found that while such plants certainly did have significant impacts, the story was complex. Broadly, impacts on plant species and communities were substantial whereas those on nutrient cycling were relatively minor. Impacts up the food chain to animals were mostly small and non-significant. Surprisingly, contrary to theory while alien plant species reduced local plant species diversity, their presence increased plant production of the invaded community. Other

¹ Eg http://www.sciencedaily.com/releases/2008/11/081122083747.htm

² Anne Pringle, Benjamin Wolfe and Else Vellinga, 2011. Mycorrhizae. In Daniel Simberloff and Marcel Rejmánek, editors, *Encyclopedia of Biological Invasions*, Berkeley and Los Angeles: University of California Press, 468-471

³ Firn, J. et al 2011. Abundance of introduced species at home predicts abundance away in herbaceous communities. Ecology Letters 14:274-281

⁴ Vilà, M. et al 2011 Ecological impacts of invasive alien plants: a meta-analysis of their effects on species, communities and ecosystems. Ecology Letters, 14: 702–708.

surprises were that except for carbon-nitrogen cycling, nitrogen-fixing species did not have a disproportionate effect on communities, and island floras were no more sensitive than mainland floras. The authors noted that our general understanding of invasive plant impacts is based on studies of relatively few, very dominant alien species. However, because their database had a much broader range of alien plants and ecosystems, the magnitude of the impacts they found was very variable, and even the direction of the ecological change was context-dependent.

Out of the tens of thousands of plant species now living outside their natural range, less than 200 have been studied scientifically for their impact, and a third of all studies cover just 9 species, not surprisingly including Japanese knotweed and giant hogweed. If you only study the great minority of plant species that you know are causing problems, it's pretty inevitable you will conclude that invasive plants are a problem, although your data are wholly unrepresentative. A very telling recent paper by Hulme et al⁵ has shown that "the more studies that are undertaken on the impacts of a particular (invasive) species, the smaller the proportion of significant results found and the larger the likelihood of these being of a different sign (increase or decrease)" - or in other words show no or opposite impacts. A study of an obviously dominating species in one place will not necessarily be a predictor of the behaviour of the same species elsewhere. The sad fact is that we have only studied about 200 "invasives" globally, the results for these look unreliable, so for about 1% of alien plants we know next to nothing, and for the remaining 99% we know nothing at all.

Impacts are not always rapid and devastating. Lord Howe Island, of the east coast of Australia is only some 11km by 3km in size, but has 239 native vascular plant species with 113 species and 5 genera being endemic. It now has 271 non-native species defined as weeds and a further 400 species found in cultivation. Since colonisation the endemic animals, have suffered greatly, many having been eliminated by introduced rats, cats and pigs. On the other hand, the plant diversity on the island has more than doubled, but very few native plants have gone extinct, although active measure are underway to control invasive ground asparagus and cherry guava. This tiny island has seen its floral diversity more than double since the 1820's - so just how many species can an ecosystem absorb? It seems that to at least some degree, islands like this are not "saturated", and they can absorb more species.

An important paper by Sax and Gaines⁶ examined the post-colonisation rapid rise of botanical diversity on a number of large and small islands. They found linear increases with time of non-native species numbers, reaching a 1:1 ratio. At the same time remarkably few native plant species have become extinct. New Zealand for example has lost only 3 of >2,000 native plants, while it now harbours an estimated 22,000 non-native plant species yet to become naturalised. Island native animals have not fared so well at all, with about 80% of extinctions being solely or partly attributed to predation by introduced carnivores, and only 10% to competition. Competition - at least in the medium term - seems not to cause extinction in native plants.

In Britain, we have a native flora of some 1200-1500 species, but have about 3,000 non-native naturalised species coexisting with them. Many British ecologists are very certain that

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⁵ Hulme, P.E et al (2013) Bias and error in understanding plant invasion impacts. Trends in Ecology and Evolution, 28: 212-218

⁶ Sax, D.F.and Gaines, S.D. (2008) Species invasions and extinction: The future of native biodiversity on islands PNAS 105:11490–11497

alien species are "unnatural" and undesirable - in which case they should be equally sure of their facts. Britain has gone through between 4 and 8 major glacial periods in the last 700,000 years, and each one decimated our flora, which between glaciations recolonized with different species sets. So is a plant like the currently invasive *Rhododendron ponticum* which was native during one interglacial a British native species, or does this term only apply to plants after the last ice age finished only 10,000 years ago?

Arable flowers (or weeds depending on your viewpoint) are an interesting case. These plants are beloved by conservationists because A) they are pretty and B) many are now satisfyingly rare - even better some are on the brink of extinction. Yet none are native species in Britain - all came in with the spread of the Neolithic farming culture from the near east, where most of these species were native. In order not to have to term these plants "aliens" we have invented a special term "archaeophytes" to include naturalised species arriving before 1500AD which we regard as honorary natives. This definition will include a large number of garden plants like pot marigold and mulberry. If they become naturalised, should they be welcomed as archaeophytes?

You sometimes hear people justifying alien species they like by the phrase "they have been here a long time". Examples are the snakes-head fritillary *Fritillaria meleagris*, *the* Summer Snowflake *Leucojum aestivum*, and the star of Bethlehem Ornithogalum umbellatum. We used to know these were native plants - because they were so described in Clapham, Tutin and Warburg, the botanist's bible, and there have been active conservation programmes for at least two of them. But in fact they are all quite late alien arrivals, and none were known in the wild before the eighteenth century. If these are "acceptable" new arrivals - why not R. ponticum which has been here as long?

If you go back to previous interglacials, the flora and fauna of Britain were very different. Two "exotic" species now on the Schedule 9 of the Wildlife and Countryside Act (which are prohibited for release the wild) are water fern Azolla filiculoides⁷ and Mandarin duck Aix galericulata⁸. Both were previously "native" to Britain, found in the West Runton Freshwater Bed of the Cromerian period c.500,000 years ago.

The take home message is that conservationists have been somewhat partial in their treatment of plants now living in countries outside what we consider their natural range. The evidence is that the vast majority are absolutely no problem at all (which is sadly not true of introduced animals).

Rather than a blanket panic over all non-native plants (assuming we can agree what that means) we should assess alien plants on a rational case-by case basis, looking at all the evidence. We must also stop calling them alien if we don't like them, while inventing other terms if we do like them. We should also perhaps acknowledge that the present British flora is a poor subset of the full west European range, and somewhat randomly derived during the short period between ice melt and the flooding of land bridges. With anthropogenic climate change coming, what will "native" really mean? Perhaps gardeners should resist too much labelling as villains for their love of unusual plants.

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⁷ Sir Harry Godwin (1975) The History of the British Flora: A Factual Basis for Phytogeography. Cambridge University Press

 $^{^8}$ Stewart, J.R.. 2010, The bird remains from the West Runton Freshwater Bed, Norfolk, England Quaternary International 228 (2010) 72-90

The Importance Of Habitat Connectivity In Securing Hedgehog Survival

A study commissioned by the People's Trust for Endangered Species (PTES), and the British Hedgehog Preservation Society (BHPS) has revealed the importance of habitat connectivity as a key factor in stabilising the decrease in numbers.

Dr. Tom Moorhouse from Oxford University's Wildlife Conservation Research Unit (WildCRU) led the research which investigated the minimal viable population figures of hedgehogs in rural and urban habitats. He explains, "A minimal viable population or MVP is the number of individual animals required to make a self-sustaining population. Numbers are dependent on a range of variables including mortality rate, litter sizes, predation, food abundance, weather conditions, type and quality of habitats. In essence, hedgehog populations in habitats that vary a lot in these factors need to be larger than in habitats that provide more favourable, stable, conditions."

Hedgehogs in rural habitats are likely to experience relatively high predation risk, and substantial fluctuations in temperature, breeding rates and food supply. In such habitats the MVP may be an estimated 120-250 individuals, which at typical hedgehog densities would require 3.8 - 57km² of connected habitat.

By contrast urban areas (e.g. playing fields or gardens) often provide habitats where temperatures and food supply are relatively high and constant, and where predation risk is low. In such stable habitats the estimated hedgehog MVP was between 32-60 individuals, requiring a minimum of 0.9 - 2.4km² of connected habitat.

The study confirms the importance of habitat connectivity (continuous, connected habitat) in urban landscapes in ensuring the survival of localised populations of hedgehogs. Habitat fragmentation for hedgehogs occurs from obstacles such as garden fencing, buildings and highways which can severely damage accessibility to areas of vegetation, food, potential nest sites and mates - all of which harm their ability to form a self-sustaining stable population. Dr Tom Moorhouse confirms, "The recommendations made from the study are useful in highlighting that hedgehogs are likely to need larger areas of habitat than we suspected, and underlines the importance of connecting gardens in urban areas." In other words, 0.9 - 2.4km² of gardens can only support a viable population if the hedgehogs can get into them!

Hedgehog numbers have been in rapid decline for more than a decade in Britain and studies such as this are vital in planning conservation efforts. Henry Johnson, Hedgehog Officer of PTES says, "We know that hedgehogs can roam an average of 2km each night looking for food, temporary shelter and mates. With this new information on the requirements for viable populations of hedgehogs it is clearly more important than ever that we try and avoid fragmentation in their habitats."

Professor David Macdonald, Director of the WildCRU emphasised "This is a trail-blazing example of how detailed research provides evidence that could change the way we live with nature. In the WildCRU we often say it's much easier to be interesting than to be useful, but

with our hedgehog project we've scored the double: from prickles to practicality!" He added, "NIMBYISM famously leads to double standards in people's dealings with nature, but in this case, we really do want hedgehogs in our back yard!"

To help counteract the decline in hedgehog numbers PTES and BHPS launched Hedgehog Street, an online hub of information, advice and ways for people to get involved in preserving the species. Hedgehog Street now boasts almost 29,000 Hedgehog Champions supporting hedgehogs across the UK. Central to the campaign is the importance of linking up urban gardens to provide larger areas for hedgehogs to roam in. Fay Vass, CEO of BHPS explains, "A gap of just 13cm² will be sufficient to allow hedgehogs passage. This can easily be achieved by removing a brick from a garden wall, digging a channel under the fence or cutting a small hole. This will allow hedgehogs to make the most of the gardens in your street and cause minimal disruption to you and your neighbours."



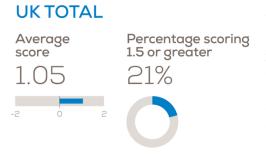
Information on how to make your garden hedgehog-friendly is available at the Hedgehog Street website, with details of how to become a Hedgehog Champion and a helpful A-Z guide of tips for helping hedgehogs at this time of year. Visit WWW.HEDGEHOGSTREET.ORG

The People's Trust for Endangered Species (PTES) combined with the British Hedgehog Preservation Society (BHPS) has released a free A-Z guide of tips for looking after the welfare of hedgehogs in the months leading up to Winter⁹. Hedgehog populations have been in deep decline in the past decade, but there are many easy and useful things people can do to make their neighbourhoods hedgehog friendly. The guide is available and free to download on the Hedgehog Street website: <u>www.hedgehogstreet.org</u> or go directly to <u>https://issuu.com/ptes/docs/a-z_for_online</u>

RSPB Connectedness To Nature Report

Edited from BBC News

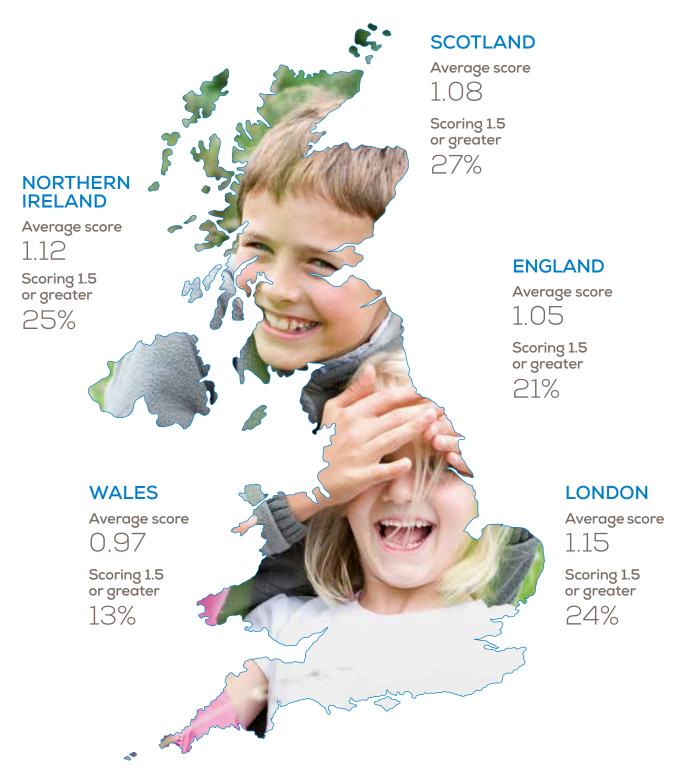
A new joint study by the RSPB and University of Essex has revealed that only 1 in 5 children are 'connected to nature'. There has been an increasing amount of research in recent years underlining the lack of contact and experience with nature among modern children and, only recently, a study by the National Trust in 2012 published a report on the phenomenon of the "nature deficit disorder". Children aged 8-12 were asked to score 16 statements found by the academic research to indicate and 'quantify' their connection to nature. Only 21% attained or exceeded the score of 1.5 perceived as a 'realistic and achievable target for every child' by the RSPB.



The results have been surprising with higher scores, or connectivity, for children in urban areas than in rural areas. What's more, girls were more connected than boys, and children from Wales were the least connected of all with only 13% of children achieving the basic level of exposure, compared with almost twice this number in Northern Ireland and Scotland.

⁹ Steve Head apologises for the delay in getting this out, it's coming up for spring now.





UK GIRLS

Average score 1.15

Scoring 1.5 or greater 27%

UK BOYS

Average score

Scoring 1.5 or greater 16%

GB URBAN

Average score 1.06

Scoring 1.5 or greater 21%

GB RURAL

Average score 1.00

Scoring 1.5 or greater 20%

There are statistically significant differences between children's connection to nature at a national level across the UK, as well as between boys and girls, and British urban and rural homes. The RSPB believes that a score of 1.5 is a realistic and achievable target for every child and is hoping to obtain additional information to reveal any significant correlations between household composition, social grade and ethnicity.

According to Sue Armstrong-Brown, Head of the conservation charity, the attitudes of adults may be having a significant effect on children. "There is definitely an attitude out there, in some cases, that nature is not perceived as interesting or engaging. In some cases it is perceived as a dirty or unsafe thing, and that's an attitude that won't help a young person climb a tree."

Dr Mike Clarke, Chief Executive of the RPSB, believes that "everyone has a role to play in putting nature back into childhood – including governments, local authorities, schools, families and, of course, organisations like ourselves and others."

The report urges national governments, devolved administrations and local authorities to recognise that having nature near the home is an important influence on children's opportunities to connect with nature. It also highlights the need to enrich positive attitudes towards nature at home by ensuring families – and all adults – are able to experience, learn about, connect with and take action for nature.

You can read the full report **HERE**.

Local Food Project

Following the last Forum Conference in Coventry which took the theme of Human Health and Wildlife Gardening, Marc Lupson of the Royal Society of Wildlife Trusts sent details of their major programme, which is promoting community health and wellbeing through small scale food production.

Local Food is a £59.8 million funding programme that distributes money from the Big Lottery Fund (BIG) to a variety of food-related projects to help make locally grown food accessible and affordable to communities. Developed by a consortium of 17 national environmental organisations, the fund is managed by the Royal Society of Wildlife Trusts (RSWT).

In 2009, Local Food commissioned the University of Gloucestershire's Countryside and Community Research Institute (CCRI), together with local food consultants f3, to undertake an evaluation of the Local Food programme, which runs from 2009 to 2014. This is an overview of the mid-term report of CCRI's findings, pending publication of the final report in 2014. The evaluation so far has found that, as expected, the Local Food programme is bringing small, often neglected pieces of land into



production, developing local infrastructure, and contributing to an increase in the physical quantity of food produced at a local level.

In addition, it is also clear that Local Food is a vehicle for a number of social benefits, including community cohesion, regeneration, healthy eating, educational enhancement, integrating disadvantaged groups into mainstream society, and developing people's skills so that they are better able to get into paid employment.

In summary, while delivering on the overall aim of making local food more accessible and affordable to communities, the programme is also helping to develop community capacity by building:

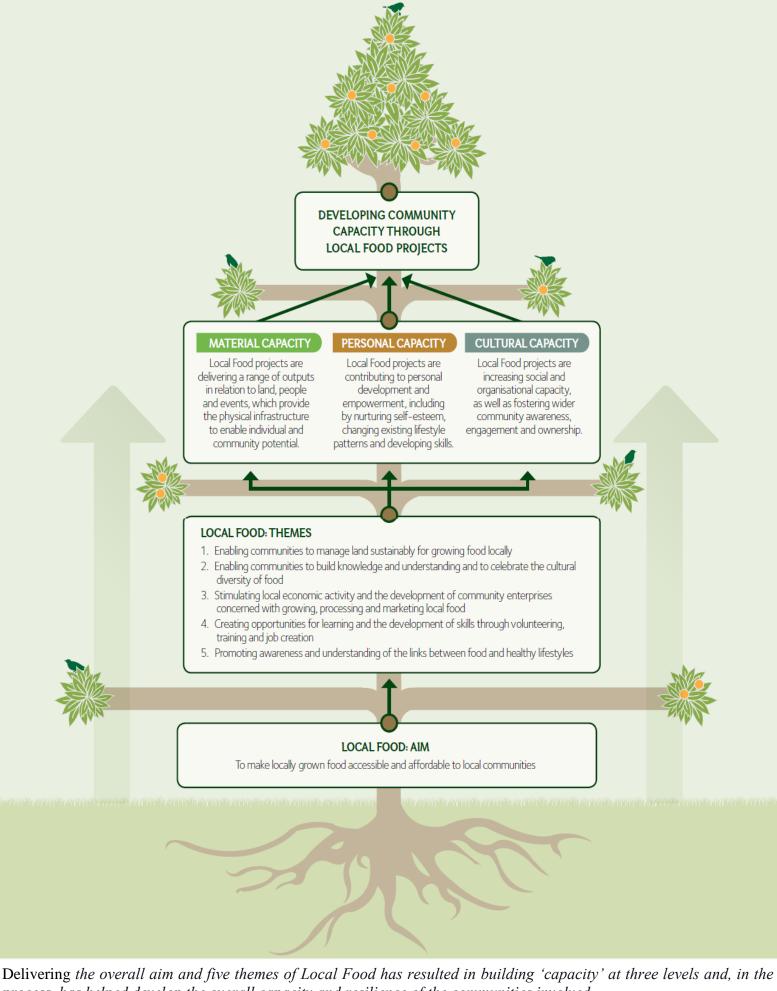
- **Material capacity:** Local Food projects are delivering a range of outputs in relation to land, people and events, which provide the physical infrastructure to enable individual and community potential.
- **Personal capacity:** Local Food projects are contributing to personal development and empowerment, including by nurturing self-esteem, changing existing lifestyle patterns and developing skills.
- Cultural capacity: Local Food projects are increasing social and organisational capacity, as well as fostering wider community awareness, engagement and ownership.

The summary interim report can be found <u>HERE</u> while a more complete version is at <u>WWW.LOCALFOODGRANTS.ORG/PUBLIC/PRESS/FULLREPORT.PDF</u>

While the interim report concentrates on the human benefits of the programme, it is clear that wildlife benefits will be forthcoming - as in this case study of productive hedge creation:

A good example of a 'celebrating food cultures' project is a hedgerow harvest project in London, where around 2,000 metres of productive hedges were planted in 2011 on 10 demonstration sites in parks, around allotments, in school grounds, and along paths and roadsides. With the permission of local authority and school landowners, local groups plant the hedges and then take responsibility for maintaining them. Typically a fruit hedge, hawthorn plum and blackthorn plants are interspersed with a range of fruit and nut trees in what the manager described as 'an experimental and non-traditional approach'. Over 240 plants were sourced from a specialist fruit nursery and planted by volunteers; further school and community hedge planting sites have been identified for planting in 2012, with a final target of 40 productive hedges. As the manager explained:

'The hedges only went in this winter (2011), so very little so far. We use a specialist fruit nursery which sends out tailor-made packs of trees and hedging to each project site. We use them because we know the plant quality is good and produced in the UK. Fruit and nuts from the hedges are free to anyone in the community who wants to pick them. The eventual harvest will be organised by Tree Warden volunteers and local people who planted the trees'



process, has helped develop the overall capacity and resilience of the communities involved.

New Government Planning Guidance Begins To Emerge

Author: Steve Head

The National Planning Policy Framework, was launched in March 2012. As the then Minister of Planning, the Rt Hon Greg Clark MP wrote in its foreword:

"In part, people have been put off from getting involved (in planning) because planning policy itself has become so elaborate and forbidding – the preserve of specialists, rather than people in communities. This National Planning Policy Framework changes that. By replacing over a thousand pages of national policy with around fifty, written simply and clearly, we are allowing people and communities back into planning."



At the time many people felt the "over a thousand pages" - honed and tested over many years - were actually abundantly clear and accessible and put the public on

an equal footing with developers when dealing with planners. It is somewhat galling (but important) that a new framework of guidance is now emerging, which may or may not be as clear - or as long winded - as the old set, but will certainly be argued over for many years.

The Planning Guidance portal has opened at:

HTTP://PLANNINGGUIDANCE.PLANNINGPORTAL.GOV.UK/BLOG/GUIDANCE

The sections on the environment are accessible at:

HTTP://PLANNINGGUIDANCE.PLANNINGPORTAL.GOV.UK/BLOG/GUIDANCE/NATURAL-ENVIRONMENT/BIODIVERSITY-ECOSYSTEMS-AND-GREEN-INFRASTRUCTURE

It is distressing to find that searching the guidance for "garden" produces references only to heritage, noise and tree protection issues. This is despite the NPPF making it clear that residential gardens should not be seen as development "windfall sites" (para 48), and that policies to resist inappropriate development of residential gardens should be considered by local authorities (para 53). At least the guidance allows that private gardens are part of green infrastructure, but we clearly have a major battle on our hands to put private gardens into their deserved place in planning guidance.

Anger In The Aftermath Of Orchard Felling

Author: Friends of Belair Park & New Leaf

On the morning of October 6, 2013, Southwark Council hacked down the Community Orchard beside Camberwell Green, making way for a new library. Camberwell Green Orchard came to life in 1995¹⁰, when local school children and residents, supported by Southwark Council, planted the first plum, fig, apple, pear and cherry trees as well as gooseberry, raspberry and blackberry bushes. Local communities then planted vegetables and herbs; the council donated the fence and continued to encourage and support the activities in the Orchard.

¹⁰ See http://transitiontownpeckham.wordpress.com/2013/07/19/camberwell-green-orchard/

Children grew up with the trees they planted, local residents made jams, and learned from and nurtured the space and made it what it is today – a stunning, flourishing urban orchard in the heart of Camberwell, home to some 25 trees and fruit trees, berries, wildlife - a priceless oasis of green in an inner city area.



113 people passing the devastated Orchard beside Camberwell Green were asked for their opinions of the felling by one of the campaigners who had fought in vain to save this doomed green space. Only a small minority (thirteen people) made it clear that they did not sympathise with the campaigners. The other one hundred were "degrees of furious" and their comments included (Southwark councillors please take note):

- "they haven't even recycled the wood they cut for benches and sculptures: everything waste and destruction,"
- "Everyone in the Court House is talking about this and complaining" "all the fun is gone" "disgusting" "bad"
- "very upset" "appalling" "Knew the girls who planted it"
- "Destroys the beauty" "That was our Orchard" "Bad Planning" "Rubbish."

The orchard came down suddenly, without anyone having had the chance to ask Southwark whether we could salvage so much as a raspberry bush for re-planting elsewhere. Episodes like this can only harden the attitudes of protestors, and intensify a sense of conflict between public and planners.

In some circles, there have been comments that a site occupation could have delayed felling whilst Southwark sought an eviction order and that this would have generated a great deal of publicity and widespread support for the Orchard. While the issues of managing the orchard had become a headache for the Council, this seems to have been a sad mishandling in a green-space-deprived city area.

Sussex University Research On Bees In Gardens

Researchers have used an experimental garden to put pollinator-friendly plants to the test, counting the number of insects visiting the plants. Their findings published in the Journal of Functional Ecology¹¹show that insect-friendly plants are just as pretty, cheap and easy to grow as less pollinator-friendly varieties.

¹¹ Garbuzov, M., Ratnieks, F. L. W. (2013), Quantifying variation among garden plants in attractiveness to bees and other flower-visiting insects. Functional Ecology. doi: 10.1111/1365-2435.12178



PhD student Mihail Garbuzov used 32 different varieties of popular garden plants. These included some nectarrich and highly scented plants he thought would be attractive to insects and some that seemed to be less attractive. While the small-scale study did not produce an exhaustive list of the best plants for pollinating insects, the team says the data has put a number on just how many more pollinators the right plants can attract. Mr Garbuzov told the BBC:

"Some of the best plants attracted approximately 100 times as many insects as the worst, and the plants that are attractive to insects are not more expensive, and they're just as pretty."

The researchers wrote in their paper that there was "great scope for making gardens and parks more insect friendly" by selecting the right plants. Tips for insect-friendly gardening are already available from a variety of sources, but the researchers say they are largely based on "opinion and general experience".

The aim of this study, said Prof Francis Ratnieks, from the University of Sussex, was to "put that advice on a firmer scientific footing, by gathering information about the actual number of insects visiting the flowers to collect nectar or pollen". The researchers gathered their data simply by visiting each of the patches of flowers every day over two summers and counting the number of insects on the flowers.

Their results did lead them to make some horticultural recommendations - they found that borage, lavender, marjoram and open-flower dahlias varieties were very good for insects. The colourfully named Bowles Mauve everlasting wallflower was also very attractive to pollinators, while the least attractive flowering plant for insects was the very popular geranium.

Marjoram, the researchers say, was probably the best "all-rounder", attracting honey bees, bumble bees, other bees, hover flies, and butterflies. Borage was the best for honey bees and lavender and open-flowered dahlias were most attractive to bumblebees.

The team put a number of varieties of lavender to the test and found that highly bred hybrids, including some with novel colours - such as white or pink - that have been carefully bred into the plants proved the most attractive to insects.

Dr Nigel Raine, from Royal Holloway University of London, commented that with bee populations declining across the world:

"We can all give bees a helping hand by planting the right flowers to give them the nectar and pollen they need. This study highlights that it's important for bee-friendly gardeners to choose what you plant with care."

"Gardeners and town planners should think carefully about the mixture of flowers they plant to ensure food is available for a wide range of bees and other important insect pollinators. It's also important to cater for the needs of the rarer species and provide food at times when there might be fewer wild flowers in bloom."

Steve Head writes: This is an important study, not least because the methodology is appropriate for "Citizen Science" studies that could clarify the attractiveness of the myriad cultivars of commonly planted flowers. We are very pleased that the authors of the research will be giving a summary of their findings at our next conference on March 17th, together with the much awaited results of the RHS Plants for Bugs project.

Survey Reveals State Of Our Orchard Habitat

A report released in October 2013 by the People's Trust for Endangered Species (PTES) has found that of around 1,000 hectares of remaining traditionally managed orchard identified in Wales, over a third of sites (35%) are neglected or threatened, and only 7% are in excellent condition. This survey adds significantly to the national inventory of traditional orchards in the UK and knowledge about this habitat.

Traditional orchards provide excellent conditions for wildlife to thrive and are home to at least 1,800 species of wildlife. However, neglect, pressure from land development and changes to agricultural practices, including the use of pesticides and herbicides, led to an estimated 94% reduction in traditional orchard habitat in Wales during the last half of the 20th century and a 90% decline in England.



Following the completion of a similar survey in England, wildlife charity PTES was commissioned by Countryside Council for Wales (now part of Natural Resources Wales) and funded by Esmée

Fairbairn Foundation to record and map the number and condition of traditional orchards in Wales. Analysis by PTES reveals that only 7% of Wales' remaining traditional orchards are in excellent condition, 58% good and 35% poor. In their previous study of English traditional orchards published in 2011, PTES announced a similar state of affairs, with nearly half of England's remaining orchards in poor condition (45%), and 9% in excellent condition with the remainder good.

Steve Oram, Orchard Biodiversity Officer at PTES, who led the project, says: "This is a brand new data set for Wales that will help people use and conserve our remaining traditional orchards. By producing local food and cider we can benefit woodpeckers, bullfinches and hundreds of other species associated with traditional orchards. If this habitat continues to disappear, we face losing not only all that wildlife but also rare fruit varieties, traditions, customs and knowledge."

Hilary Miller, Natural Resources Wales, adds: "Traditional orchards often provide important areas for our wildlife and in particular pollinators such as bees and butterflies which have

declined in recent years. Mapping out the orchards will help us to protect them and preserve local species of apple and other fruit which are an important part of our cultural heritage."

The year-long project in Wales has involved 120 local volunteers who have visited about 20% of the orchards, recording the species, age and condition of the fruit trees – and contributing some 123 volunteer days to the project. The owners of 145 orchards also responded to questionnaires, providing additional valuable information at a local level.

A new mobile app will make the task of adding sites and collecting data easier, and is open to anyone with access to a smartphone. The *Traditional Orchard and Fruit Tree Survey* app can be downloaded for free from your usual sources.

The inventory project is now underway in Scotland, adding to the data for the UK and providing a practical resource for preserving and managing these habitats. The full report can be found HERE.

71 Species Of Moth In One Night!

Sally Fletcher has sent us a list of moths recorded in her garden¹². A group called "Get Out There" from Hammersmith Community Garden Group camped at her willow plantation in Shepperton on 8th August, and monitored the moths.

They captured 194 specimens from 71 species, which Sally found exciting, knowing that willow has the second largest insect biodiversity of trees. Interesting species, with their national status included:

Common Name	Latin Name	Status
Brown-veined Wainscot	Aarchanara dissoluta	Local
"Micro moth"	Agriphila selasella	Local
Chocolate Tip	Clostera curtula	Local
Tree lichen Beauty	Cryphia algae	Recent colonist
Maiden's Blush	Cyclophora punctaria	Local
Cream-bordered Green Pea	Earias clorana	Nationally Scarce B
Scarce Footman	Eilema complana	Local
Dingy Shell	Euchoeca nebulata	Local
"Micro moth"	Euzophera pinguis	Local
Rustic	Hoplodrina blanda	BAP4
Rosy Footman	Miltochrista miniata	Local
Diamond-back moth	Plutella xylostella	Migrant
Small Seraphim	Pterapherapteryx sexalata	Local
"Micro moth"	Trachycera advenella	Local

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¹² Contact Steve Head WLGF@STEPHENMHEAD.COM if you would like a copy of the full list

Puddy Tats Are A Big Problem For Garden Birds After All

Scientists from Sheffield and Exeter Universities have published an important study demonstrating that the effects of predation by domestic cats on garden birds may be less important than the indirect effects of the presence¹³

Urban areas contain high densities of domestic cats and the grey squirrels. Direct predation by both species on garden birds and their nests has attracted intense debate, but recent studies¹⁴ suggest the main direct victims of cats are birds in poor condition that might not survive anyway. However, little evidence has been collected on the sublethal and indirect effects of the presence of predators, which theory predicts should be more important.

The team conducted controlled experiments at active urban blackbird nests to provide the first evidence to measure the potential sublethal and indirect effects of domestic cats and grey squirrel on garden bird reproductive success. Since neither mammal species is known for cooperation, the team used a stuffed tabby and a stuffed squirrel placed near the nests for fifteen minutes. They also presented a stuffed rabbit as a control, a non-predator species that should not cause alarm.

The stuffed domestic cat caused blackbirds to spend time and energy attacking the potential predator, and the rate of food supply to chicks was reduced for up to an hour after exposure by a third relative to a non-threatening stuffed rabbit control. The birds did not compensate by bringing larger loads of food per visit, and previous experiments have demonstrated that this level of reduced food delivery will reduce nestling growth rates by c. 40%. The stuffed grey squirrel induced similar but weaker effects.

Furthermore, 24 hours after exposure to the cat threat, daily nest predation rates, by crows and magpies, increased by tenfold relative to the squirrel and rabbit models. It seems that the intense display and attack behaviour by the parents alerted the local crows and magpies rto the presence of the nests, which they might not have found otherwise.

It is startling that such a brief exposure to a predator reduced chick feeding rates so drastically, while raising the likelihood of direct predation on nests by third party felons. As the scientists observed, it is essential that future assessments of the impact of predatory species on birds take indirect effects into account. Full elimination of the sublethal and indirect effects of domestic cats would need them to live permanently indoors.

TV Production Company Calling Wildlife Gardening Enthusiasts

Dragonfly Film and Television is a BAFTA award-winning, independent television production company, specialising in factual programmes. They work across all the major UK and international broadcasters, such as the BBC, Channel 4, Discovery and National Geographic. We have a proven track record of delivering documentaries and series covering

¹³ Colin Bonnington, Kevin J. Gaston and Karl L. Evans 2013. Fearing the feline: domestic cats reduce avian fecundity through trait-mediated indirect effects that increase nest predation by other species. Journal of Applied Ecology 50, 15–24. ¹⁴ See papers by Phil Baker and Mike Toms in the November 2012 Forum Conference proceedings



everything from maternity wards and hotels to schools and families in their homes, they now want venture into people's gardens.

"Our latest idea is about people who capture wildlife in their back garden. Our gardens are our own private wildernesses – the place we gain most experience and enjoyment of the natural world, and we British don't want to miss a bit of what's going on! We want to find people who are totally obsessed with capturing birds, bees, hedgehogs, butterflies, foxes, badges and moths to name a few."

"We want to talk to as many people as possible to find out what they do and why they do it. Whether its moth trapping, filming foxes, putting in nestbox cams, noting natterjacks we would love to talk to you. If you know anyone who might be interested in taking part, please contact Sarah.Rubin@dragonfly.tv or call on 0207 033 3195"

Wildlife As Well As Potagers In Garden Design.

Author: Jackie Herald



Forum member Jackie Herald sent this account of a big wildlife garden project¹⁵. It is good to hear of designers bringing wildlife gardening to their clients.

Having extended their house, Adam and Sarah Johnson felt the time was right to create the country garden they'd always wanted. Supplementing their own ideas and practical skills, they enlisted designer Christine Lees for her flair and particular expertise in wildlife-friendly and country gardens.

Christine's brief was to create a garden 'that felt as if it had always been there', reaching sympathetically into the surrounding landscape.

The features at the top of the family's wish list were an attractive and practical approach leading to the house, a lawn for playing croquet and a wildflower meadow. A master plan was drawn up for the three acre site. Bordered lawns and terraces defined different areas in

which to relax and entertain, including a secluded courtyard, rose garden and potager. These cultivated gardens lead into the more informal and predominantly native plantings of woodland and meadow, restored on land previously cleared for farming.

The landscaping was undertaken over several seasons. At each stage Christine drew up detailed plans and specifications for the next area to be built and planted. Keeping the spirit of the place is important, and the wildlife is part of this. Moorhens live on the pond and forage for snails in the borders, where native species mix



¹⁵ Adapted from her article in Homebuilding & Renovating Magazine

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with ornamental plants. There are increasing numbers of butterflies and other insects in the wildflower meadow. Native trees shelter the gardens, and hedges of native species add character. Planting includes rabbit-resistant species, such as *Crambe cordifolia*, although the dog plays her part in keeping these visitors in check.

For added visual interest, some ornamental plants have been included around the pond – notably the *Gunnera*, with its dramatic architectural foliage. Within the wildflower meadow a number of specimen trees, including a snakebark maple, have been planted, selected with an eye to the future. The garden grows and develops over time, in line with Adam and Sarah's enthusiasm, as a new plant or sculpture is discovered and brought home.

Contact: CHRISTINELEESGARDENDESIGN.CO.UK

Galls In Gardens

Author: Peter Shirley

Many garden plants are hosts to gall-causing insects, mites and fungi. Their galls are often complex and colourful and often harmless, although some can be serious pests of fruit and vegetables. Many can easily be identified (see references and images below) and learning to find and recognise them opens up a new dimension for wildlife gardeners.

The main groups of mite and insect gall-causers are eriophyid mites, gall midges and gall wasps. Other insect gall causers include some psyllids, aphids, flies other than midges, beetles, moths and sawflies. Galls are found on trees and shrubs and on many herbaceous plants, including grasses and ferns.

They come in a wide variety of forms and sizes and may be very prominent or very obscure. Many are virtually hidden inside shoots, branches and flower stems. Insect and mite causers are wholly or partly enclosed by their galls, which provide them with nutrition as well as shelter and protection.

Most gall-causers are associated with particular species or genera of host plants. Well known examples include oak apples, robin's pincushions on wild roses, nail galls on maples, limes and other trees, and red bean galls on willows and sallows.

The number of species and their range in Britain is constantly changing, not least because of the horticultural trade. A recently introduced psyllid galling Bay has been spreading north, and a mite on Fuschia, first recorded at Kew in 2007, may be establishing itself in southern Britain. These and eight other galls likely to be found in gardens and allotments are described and illustrated below.

Members are invited to report their presence to Peter Shirley (<u>PETERSHIRLEY@BLUEYONDER.CO.UK</u>). Records of other galls in gardens will also be welcome, and following verification they will contribute to The British Plant Gall Society's expanding database of gall records.



THE BRITISH PLANT GALL SOCIETY

BPGS encourages and coordinates the study of plant galls, with particular reference to the British Isles. We have a gall recording scheme, publish keys to, and books about, plant galls, organise field meetings and gall gathering weekends, workshops on gall ecology, and offer identification services. Members receive our twice yearly bulletin 'Cecidology' and we participate in ispot.

Our website is http://www.british-galls.org.uk/ Find us on Twitter @britgalls

Do We Need A New Model For Engaging With Gardeners?

Jamie Curtis Hayward's Oxford Master of Science thesis was completed in September 2013, with the title "Wildlife gardening: an alternative conservation script? This is a most interesting study, looking at motivation for wildlife gardening from a more sociological approach than is usual. There are some challenges into how on the one hand we make more gardeners aware of the value and evidence base of wildlife gardening, with their wildlife may be the most important driver for most gardeners. It would be good to invite Jamie to speak at a future conference. The paragraphs below are from the Summary and Conclusions of his thesis:

UK gardens are being increasingly framed as a habitat under threat. In response, conservation organisations and academics have looked to wildlife gardening as a means by which to reverse the declines in garden wildlife. As a result there is a drive to mould wildlife gardening into a more rigorous, science-based model. Despite the recent increase in interest in the subject there appears to have been very little research into the practices of wildlife gardeners. In this study semi-structured interviews are held with a group of wildlife gardeners in London. Respondents reveal that their practices have little in common with science-based management models and are informed more strongly by the affective relations which they have formed with nonhumans in their gardens. The study raises questions about the extent to which these affective practices present a more effective model of conservation for urban gardens.

This study finds that the concerns that wildlife gardeners are spatially uncoordinated, have little interaction with conservation organisations, and sometimes rely on outdated science, may to some extent be warranted. None of my respondents had neighbours who also gardened for wildlife, only three had submitted limited ecological data to conservation bodies, and the quality of information used by my respondents varied considerably. However, the study also suggests that extending the rationalised management model used on UK nature reserves into private gardens is an inappropriate solution.

Conservationists must forge new approaches if they are to conserve garden biodiversity. UK private gardens are important for conservation in two respects. Firstly, they are the places in which people form positive relationships with nature. Secondly, they are a habitat area for a substantial proportion of Britain's wildlife, including some threatened species. This study finds that these two roles overlap complementarily in wildlife gardens. The success of this overlap is in part due to the fact that wildlife gardening practices deviate from the rationalised conservation management model. By letting a set of practices emerge from the affective

relations formed between humans and nonhumans, rather than following a standardised model, wildlife gardeners are able to fully immerse themselves in the nonhuman world in their gardens, rather than having to maintain objectivity through separating themselves from nature, as a nature reserve manager or an ecological surveyor must.

The resulting practices differ from that of conservation management, not only in their philosophy, but also in their form. By relinquishing the role of the manager, the practices of wildlife gardeners have closely aligned to those which Lorimer¹⁶ hopes will characterise a new, 'fluid conservation for the 21st century'. Wildlife gardening is an open ended process, it does not aim towards the recreation of a particular ecological baseline. The wildlife gardeners of inner London worked with the cosmopolitan mixture of plants and animals which had colonised their gardens.

Like any garden, the wildlife gardens were being continually made and remade by a great diversity of different actors. However the wildlife gardeners' strong environmental ethic, which had in part emerged from deep affective relations with nonhumans, meant that my respondents were sensitive to the ecological process in their gardens and welcomed ecological changes and surprises. Such a dynamic and affective approach suits the chaotic socio-ecological system of inner London in which the gardens were located. It also offers an insight into how alternative conservation scripts and fluid conservation approaches might be practised.

City Birds "Cope Better In Cold" Than Those In Woodland¹⁷



For the first time in 10 years urban breeding birds fared better than their woodland counterparts during 2012's cold wet weather, a study has found. Blue and great tits in a woodland area were compared with those in Cambridge Botanic Garden, and a wetland site. Researchers found urban birds relied less on a single source of food than woodland birds which favour caterpillars, whose numbers are

affected by cold weather. Woodland birds also bred less during the cold spell in 2012.

The study was carried out by Anglia Ruskin University in conjunction with the Centre for Ecology and Hydrology. The British Trust for Ornithology referred to 2012 as "one of the worst breeding seasons on record" following poor results in its annual surveys of nests and fledglings. "Urban scavenger" birds rely less on one source of food such as caterpillars.

The latest study¹⁸ concluded birds living in native British woodland were "more susceptible to the effects of extreme weather conditions than those in urban environments".

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¹⁶ Lorimer, J. (2008) Living roofs and brownfield wildlife: towards a fluid biogeography of UK nature conservation. *Environment and planning A* 40.9: 2042.

¹⁷ Adapted and corrected from: <u>WWW.BBC.CO.UK/NEWS/UK-ENGLAND-CAMBRIDGESHIRE-24225216</u>

¹⁸ www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0075536

Birds at Brampton Wood nature reserve - a traditional British woodland - typically "fared significantly better" in the past, and bred more successfully than those studied at Cambridge University Botanic Garden in the centre of Cambridge.

In 2012, the breeding of birds in all sites studied was reduced. However, the depression in success rates measured as brood size and biomass was more marked in the "natural" Brampton Wood site than in the urban situation' The chicks in Brampton also took almost twice as long to hatch as those in the Botanic Garden nests - 32 days as opposed to 17.

Anglia Ruskin's Dr Nancy Harrison described the hatching delay as "unprecedented" during the study period, saying the cold weather played a key role in caterpillar reproduction and growth, reducing numbers and in turn reducing the main food source for the woodland birds. "Urban scavenger" blue and great tits living in towns were used to foraging for other prey, so were not as adversely affected by a shortage of caterpillars. Dr Harrison concluded that if these extreme weather events become more commonplace as a result of the effects of climate change, then birds living in urban environments may have the advantage"

Walled Kitchen Garden Project

Author: Lois Amos

Steve Head writes: After the study above documenting the impacts of the awful weather of 2012, and bearing in mind the rather extreme weather outside my window at present (early January), it is good to recall again just what an excellent summer we had last year.



On a quick note, our Walled Kitchen Garden Project is going well and this year we have had some great success stories with our 'weeds'! Where the patches are that we have had to leave uncultivated we have had a great selection of natives popping up,

We have recorded Clouded Yellow, Chalkhill Blue and also Brown Argus butterflies in our garden and our local Friend who records data for the British

Bird Atlas and also records for the Butterfly Conservation Society has recorded 21 species of butterfly on one day in early August in the Park! Also we have had a cuckoo calling in the Park earlier this year and regularly see our young buzzards riding the thermals above the walled garden. Wonderful summer here for our local wildlife.