



Wildlife Gardening Forum

Newsletter December 2012

As usual, sorry for the delay since the last Newsletter- see the last page. Steve

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Wildlife Gardening – No Blackthorn Required?

Terry Oliver

"No Blackthorn Required" has been sparked by the title of Ken Thompson's book: "No Nettles Required: the reassuring truth about wildlife gardening¹". Steve Head's comment in "The Why and How of Wildlife Gardening²" referring to nettles: "only a nutter would introduce them into their garden" is exactly how I feel about blackthorn after nearly 10 years' experience of a native species garden hedge which includes it.

When we planted the hedge typical recommendations were for 30% blackthorn, the same percentage as hawthorn. Looking on the web, the recommended percentage for blackthorn, in present day native species hedge mixes, seems to be much lower at around 5%.

¹Eden Project Books 2006

² Handout for a short course - I can supply a copy if you want - Steve Head

Nevertheless its prolific suckering makes it a menace in any quantity. At least a third of our garden, including the meadow and woodland borders would be lost to blackthorn scrub by now if we weren't relentless at digging out the suckers.



Clobbering blackthorn scrub in the Mendips

Working on Sussex Wildlife Trust conservation teams gives me a good feel for the sheer ability of blackthorn to spread across an open area. For example this year we are starting to cut willow in a compartment, which hasn't been touched this century, at Filsham Reedbeds, near Hastings. A path 140 metres long has had to be hacked, mostly through dense blackthorn scrub, to allow us access.

Health and Safety may be an issue. Neil Fletcher of Sussex Wildlife Trust, when he was doing a video³ of our garden, mentioned about thorn wounds causing problems and there is some debate on this on the web. I have never suffered with the countless blackthorn scratches received over the years. Perhaps they haven't been deep enough. Certainly the thorns, from any cuttings which haven't been gathered up, go right through the soles of our "cloggies", and if a small child was involved, would possibly go into the foot.

Blackthorn is undoubtedly good for wildlife. Probably the most iconic sight would be a brown hairstreak butterfly laying eggs. We cut our hedge back to the old growth after Christmas when invertebrate activity is at a minimum but we also need to partly trim back the new growth in August. This year we had about a twenty foot length of the top still to do when a brown hairstreak arrived and started laying eggs in the uncut bit. This was one of several local sightings. A brown hairstreak in your garden is a great record although not unknown in Sussex gardens. Mike Toms of the BTO, however, had to add the species to the Garden Birdwatch rarer butterfly list for me to be able to log the record!

Is laying eggs in garden hedges great for brown hairstreaks though? Domestic scale native hedges have to be cut back ruthlessly otherwise the garden would disappear. Catering for brown hairstreaks means doing this in July; when the caterpillars will have descended to the ground to pupate. This is not a good cutting time for other wildlife. If the butterflies weren't tempted perhaps they could find safer spots in the surrounding countryside. If there wasn't plenty of blackthorn there, brown hairstreaks wouldn't be about anyway.

What will we do? Except for trimming back some of the most exposed shoots we have left most of the uncut section uncut for the time being. Even so, one of the cut shoots had an egg halfway down it. According to the book this egg shouldn't have been there but it did enable the shoot, with its egg, to be delivered to the Sussex Wildlife Trust to confirm the identification.

³ Neil's video is at: <http://www.sussexwildlifetrust.org.uk/wildlife/page00095.htm>

We now have to decide what to do in the winter. We are minded to carry on with our normal cutting-back, check for more eggs, and if we find any, keep the shoots alive in a reasonably protected environment, transferring any emerging caterpillars to new blackthorn growth in the spring. We will now also check for eggs in future years.

My advice, at least to those with a modest garden, would still be: “don’t put in blackthorn”.

Plight of the bumblebee: Scruffy pollinator in peril

This piece is an abridged version of the article by Anthony King in New Scientist 8th August 2012

Bumblebees have been in decline for decades and things are getting worse. Although colony collapse does not affect bumblebees, they are under much greater threat of extinction than honeybees. Beekeeping has seen a big decline in the US and much of Europe since the 1970s, but it has increased in Asia, Africa and South America. By increasing the numbers of "domesticated" honeybees we keep, we could even be exacerbating the problem for our native bumblebees. If we lose them, we will pay a high price.

All adult bees drink nectar for energy and feed protein-rich pollen to their grubs, but honeybees and bumblebees forage in different ways. Honeybees send out scouts, which do a waggle dance upon their return to tell hive-mates where to go. Bumblebees do not dance, so each forages independently. What's more, they are "not clean and well groomed like honeybees", says pollination ecologist Jane Stout at Trinity College Dublin in Ireland. Their scruffiness makes them better at snagging pollen and moving it between flowers. Their size and furriness also means they can brave the elements. "When it's pretty windy and damp, they can be out there pollinating our crops and wild flowers," says Simon Potts at the University of Reading. "Honeybees hole up for days when the weather is bad."

Bees, along with other insects, pollinate around three-quarters of the most important crop species. But the mantra that honeybees are the most important pollinators is not true, says Simon Potts. Last year, he published research which concluded that in the UK, honeybees now pollinate just one-third of crop plants, at most⁴. The other two-thirds are pollinated by wild bees, including bumblebees and solitary bees, and by hoverflies, of which there are about 6000 species worldwide. As for wild plants, honeybees pollinate only 3 per cent in the UK, according to recent unpublished surveys.

Potts's paper drew criticism from beekeepers and some scientists. His message has since received backing from Goulson, Stout and other authorities on bees who believe that the focus on honeybees is potentially damaging⁵.

In some situations honeybees are essential pollinators. Every February, a million hives are moved to California to pollinate the almond crop. "If you have an intensive system of

⁴ Agriculture, Ecosystems and Environment, vol 142, p 137

⁵ Jeff Ollerton *et al* 2011 Overplaying the role of honey bees as pollinators: a comment on Aebi and Neumann (2011). Trends in Ecology & Evolution, **27**: 141-142

agriculture where wildlife is effectively being excluded and then you have a period of bloom lasting a month, you can't expect whatever is living locally to do that job," says honeybee biologist Francis Ratnieks at the University of Sussex.

But there are also situations in which bumblebee pollination is essential. Some crops, such as tomatoes, hold their pollen in pepper-pot-like containers which are tricky to access. But bumblebees "buzz pollinate", grabbing the pepper pot and rattling it at high speed, showering themselves in pollen. Every tomato you have ever eaten was almost certainly pollinated by a bumblebee. The same goes for blueberries, strawberries and field beans. There are also indications that some plants benefit from mixed pollination by honeybees, bumblebees and other pollinators. One study found that when wild bees are around, honeybees move between sunflowers more often, increasing the efficiency of pollination. Overall, crops and wild plants benefit from a variety of pollinators because they all play slightly different roles in the ecosystems. Honeybees have short tongues whereas bumblebees' tongues vary in length, and their different body sizes and shapes suit particular flowers.

Juliet Osborne's work at the University of Exeter has shown why bumblebees are so vulnerable. She fitted some with transmitters to study their foraging pattern, finding that while individuals occasionally ranged up to 4 kilometres from home, they mostly stayed within a few hundred metres of their nest. "If they are living between two fields, it only takes the farmer to change how he manages one field, or for no flowers to be in bloom, and that colony is going to be vulnerable because it can't spread across the landscape," she says. The impact can kick in rapidly because bumblebees store just a few days' worth of backup honey, in small wax pots. That puts them at a disadvantage compared with honeybees, which keep much larger food stores in their hives and get syrup from their keepers when stocks run low.

Bumblebees appear to be in decline in most places and Osborne's findings support the idea that changes in land use and farming practices are responsible. Those species that specialise in particular plants seem to be most sensitive to changes in land use⁶. The reduced coverage and numbers of their food plants, especially favourites such as red clover and legumes, gets much of the blame. Similar reductions and localised extinctions of such plants have been recorded in Ireland. In both nations, solitary bees have suffered a similar fate. Bumblebees in the US are also in trouble. A study comparing current and historical distributions of eight species found that four were doing reasonably well but the others had seen numbers decline by up to 96 per cent, with their geographic ranges shrinking by between 23 and 87 per cent. These species also had low genetic variability and high prevalence of a fungal parasite⁷.

Until recently, the idea that pesticides are killing bees was contentious. Dave Goulson at the University of Stirling had his doubts until he ran his own studies. This year he reported that an insect-killing chemical related to nicotine, called neonicotinoid, is affecting bumblebee colonies and their rearing of new queens⁸. First sold in 1994, it coats seeds and is absorbed by the growing plant. Inevitably, small amounts enter pollen and nectar. The pesticide is then ingested by bees and scrambles their navigation systems. "The worker bees go out, become slightly poisoned when they feed on the crop and can't find their way home again," says

⁶ Winfree, R., Bartomeus, I. and Cariveau, D. 2011 Native Pollinators in Anthropogenic Habitats. *Annual Review of Ecology, Evolution, and Systematics*. **42**: 1-22

⁷ Cameron, S.A., et al. 2011. Patterns of widespread decline in North American bumble bees. *Proceedings of the National Academy of Sciences* 108: 662-627.

⁸ Whitehorn, P.R *et al* 2012. Neonicotinoid Pesticide Reduces Bumble Bee Colony Growth and Queen Production. *Science* 336: 351-352

Goulson. "It doesn't kill them, but a lost bee is as good as dead." A recent study found that the pesticide decreased foraging success and survival in honeybees too.

Goulson also claims that bumblebees suffer from a lack of food in areas where there are honeybee hives. In one study he carried out in Scotland, worker bumblebees of four species were significantly smaller - "a bit runty" - in places where there was a high density of honeybees⁹. Other scientists, including Osborne and Potts, are not convinced that such competition is a problem for bumblebees.

A decline in wild pollinators, combined with a loss of honeybees, will pose significant economic problems. Potts has estimated that pollinators contributed £510¹⁰ million to UK agriculture in 2009. If you were to replace them with hand pollination by people - Potts enlisted his students to run a test - it would cost a whopping £1.8 billion. That would have huge consequences for food prices, and these estimates do not include the pollination of crops such as clover and alfalfa that feed cattle, or the plants in our allotments and gardens. "We are just starting to get some signals from farmers and fruit growers that they are having deficits or there is not quite enough pollination," he says. It is estimated that the farm-gate price of apples in the UK, for instance, would double without bees.

Visits to the countryside will improve the UK's health¹¹

More visits to the countryside and coast, better-maintained green spaces and more access to nature will improve the health of people in the UK, and should be urgently promoted, according to an influential committee of MPs. They called for Defra to set a target for "increasing public engagement with nature", while the health and education departments must create new ways of measuring and reporting on the links between "greater public participation in activities in the natural environment and improved health and educational attainment". Disadvantaged people tend to have less access to such activities, the MPs noted, which should also be improved.



Anne McIntosh, the Tory MP who chairs the Environment, Food and Rural Affairs Committee, said: "Our natural environment supplies us not only with food and materials but also with vital services that ensure society's wellbeing, such as clean air and water, soil nutrients and recreational spaces. These ecosystems services are worth billions of pounds to the UK economy and we cannot afford to let government policies ignore them." People visiting the countryside, seas, rivers and other beauty spots, represent about £10bn a year in benefits, according to government estimates, while fishing contributes more than £300m a year and pollination is worth about £500m a year to the rural economy.

⁹ David Goulson, D. and Sparrow, K. 2009. Evidence for competition between honeybees and bumblebees; effects on bumblebee worker size. *Journal of Insect Conservation* **13**:177-181

¹⁰ Note other estimates elsewhere, like the article below and in the Welsh pollinator article later.

¹¹ See www.guardian.co.uk/environment/2012/jul/17/mps-public-engagement-nature?newsfeed=true

The MPs also called on David Cameron to intervene with the Treasury and the Cabinet to ensure that the tens of billions of pounds in value that the natural environment provides to the UK economy are properly valued, and their protection included in all government policies, from every department. However, the MPs recognised that the government was unlikely to contribute the £1bn a year needed to preserve the natural environment, and called for ministers and civil servants to seek more opportunities for partnerships with business. [*So no change there then. Ed.*]

Olympic legacy project marks the Battle of Hastings with wildflower meadow¹²

Fern Alder has kindly forwarded this from Horticulture Week of 16 October 2012

Wildflower Turf¹³ teamed up with the Meadows Nectar Networks Initiative last week to create a wildflower meadow mirroring the planting used at the London Olympics. The turf supplier planted the same kind of grasses and flowers it supplied to the Olympics at Kingsmead Meadow, where King Harold set up camp on the eve of the Battle of Hastings on 14 October 1066



Volunteers laying turf at Kingsmead Meadow

Wildflower Turf specialises in soil-less growing systems for wildflowers and grasses, featured in the Olympics opening ceremony [*eg "Glastonbury Tor" Ed.*] and across several sites including the equestrian centre and the athletes' village. Managing director James Hewetson-Brown said "The blend has 30 different flower seeds and four grasses. We grew more than needed for the Olympics, so this extends the turf's benefits to the wider community and provide a lasting legacy."

There is a good video clip on this project at <http://www.wildflowerturf.co.uk/videos/> - the other videos are well worth watching as well.

The Meadows Nectar Networks Initiative of the High Weald Landscapes Trust¹⁴ raises the awareness of the value of meadows by demonstrating to the public and landowners what can be achieved to reverse their decline. A second site to benefit from the wildflower turf will be near the restored 17th-century Poplar Cottage at the Weald and Downland Museum in Chichester.

¹² www.hortweek.com/Parks_and_gardens/article/1155003/Olympic-legacy-project-marks-Battle-Hastings-wildflower-meadow/

¹³ www.wildflowerturf.co.uk/

¹⁴ www.highwealdlandscapetrust.org/weald-meadows-initiative.html

Plan to help ensure Wales is the bee's knees

In July, John Griffiths, the Welsh Government Environment Minister announced that the Welsh Government would be introducing a new Pollinator Action Plan for Wales, seeking to halt and reverse the decline of all pollinators in Wales¹⁵.

John Griffiths said:

“We know that 20% of the UK cropped area is made up of pollinator dependent crops; a high portion of wild flowering plants depend on insect pollination for reproduction; and the value of pollinators to the UK Government is conservatively estimated to be £430 million per annum¹⁶. This makes pollination a vitally important ecosystem service.

However despite their importance, pollinator populations have been on the decline for the last 30 years and we know that if we don't take prompt action, this trend will continue.

That is why I am considering how we might slow and reverse the decline in pollinator numbers and why I am committed to addressing this issue. Wales will be leading the way on this issue and will be the first UK Government to produce a Pollinator Action Plan."

The action plan will be developed in partnership with key agencies and might include things like:

- Changes to the planning system that will help to make development pollinator friendly
- More pollinator friendly planting across the public estate, including on railway embankments and road verges
- Joint working with local authorities on the management of parks and other public green spaces
- Encouraging nurseries to sell pollinator friendly plants and provide advice to consumers
- Building an evidence base on the impact of pesticides through joint working with the National Botanic Garden of Wales
- Close working with Welsh Bee Keepers Association and other voluntary groups.

The decision was the result of the Friends of the Earth's "Bee Cause" campaign, which is still collecting support to persuade the Westminster Government to adopt a similar approach in England. See www.foe.co.uk/what_we_do/bee_cause_petition_35038.html

¹⁵ www.wales.gov.uk/newsroom/environmentandcountryside/2012/120723beesknees/?lang=en&status=close

¹⁶ See higher estimates earlier in the newsletter.

Woking Garden Wildlife Watch 2012

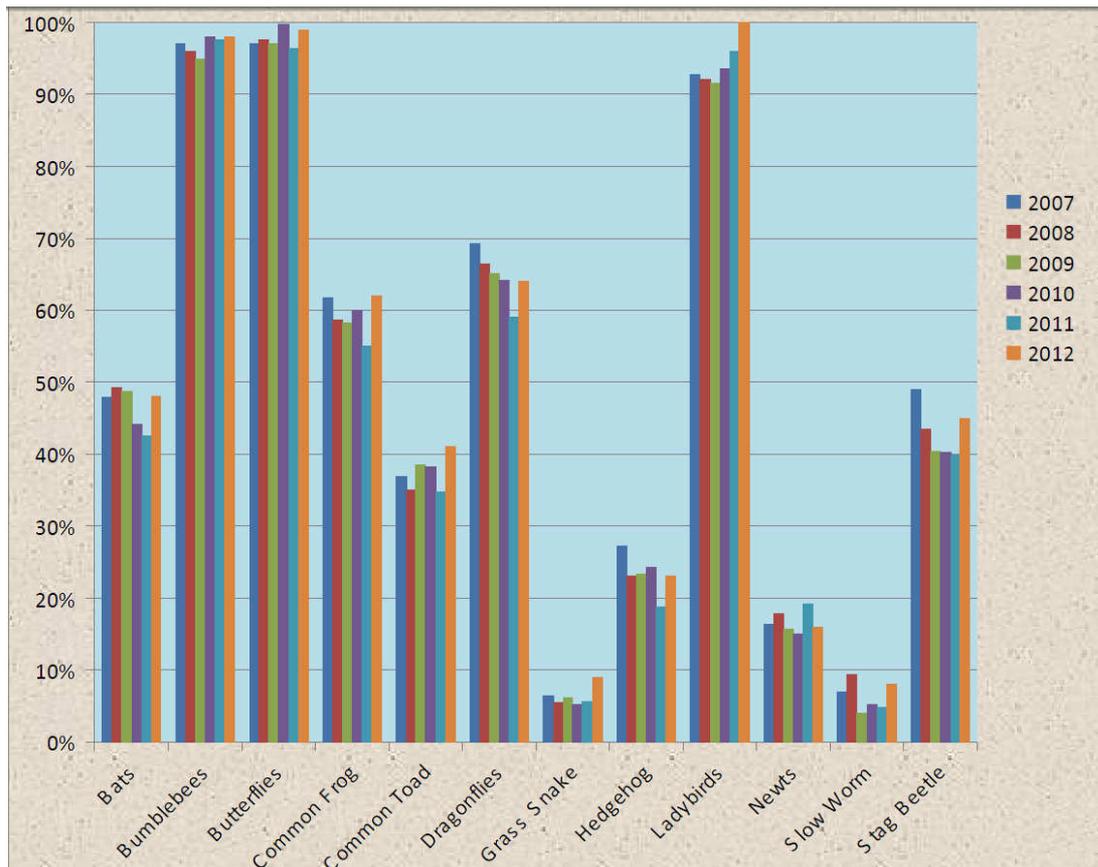
Woking Local Action 21 have analysed the sixth Gardening For Life (GFL) annual Woking Garden Wildlife Watch in a full Assessment Report of which this provides a brief summary. There were 130 who returned their forms for which many thanks. In spite of the lower numbers we were still able to demonstrate statistically significant changes consistent with previous year's trends.

The table below shows reported observations for 12 species of birds seen since May 2011.

	2006/ 07	2007/08	2008/ 09	2009/10	2010/11	2011/12
Blackbird	95%	98%	94%	98%	96%	98%
Chaffinch	75%	74%	72%	78%	68%	71%
Dunnock	54%	55m	60%	58%	65%	61%
Goldfinch	45 %	48%	51%	46%	56%	61% **
Gt spotted woodpecker	59%	59%	60%	55%	63%	72% **
House Sparrow	71%	66%	57%	60%	65%	72%
Jay	78%	79%	78%	76%	78%	88% **
Long-tailed Tit	51%	51%	59%	61%	62%	77% ***
Ring-necked Parakeet	20%'	30%	29%	29%	35%	41% ***
Song Thrush	63%	67%	61%	68%	66%	79% ***
Starling	74%	76%	68%	64%	71%	70%
Wood Pigeon	85%	88%	89%	86%	86%	99% ***

Table: Proportion of respondents reporting common bird species seen in May to April from 2007-12 (Significant differences: **1%, ***0.1% for differences between 2007 and 2012)

The national trends of long-tailed tits and goldfinch increasing over time, were confirmed with significance increases compared to 2007. Ring-necked parakeet increased further to 41%. It was good to find that song thrush were reported by 79% of participants, a very significant increase from the 63% of 2007 and the 42% in the 1999 survey. There was a highly significant increase in wood pigeons being reported in 99% compared to only 85% of gardens in 2007. This year there were significant increases in reports of great spotted woodpeckers and jays compared to 2007.



For the selected animal and insects seen over the last year bats, frog, toad, and dragonflies were all reported at higher rates than in 2011. Hedgehogs which had demonstrated a significant drop in 2011 from the 27% in 2007 still showed a just significant drop (at 5% level) with 23% reported in 2012 from the 33% reported in 1999 survey. One of our volunteers has been working with the nationwide Hedgehog project has been promoting awareness of being friendly to hedgehogs and been collaborating with WBC contractors for creating woodpiles so it is to be hoped that numbers of reports will increase over time. A student has also used the data to map the location of gardens seeing hedgehogs for her dissertation and so in the future we can see how the population distribution changes.

For further information about the GFL project and previous reports see the GFL pages of <http://wokingla21.wordpress.com>.

Gill Stribley August 2012

Wildlife Garden wins Welsh Church Garden Competition



Thanks to Jan Miller for sending news of St John's Church Community Wildlife Garden which has won first place in Colwyn in Bloom Competition 2012 - Church gardens class.

Jan designed and planted a perennial butterfly garden as one of the churchyard borders about 5 years ago. There are photos and planting plans for some of these in her book¹⁷. The project has been running since April 2005, and the garden continues to be cared for by a small group of volunteers who support an "Adopt a Border" scheme.

This wildlife border scheme has been commented on by RHS judges as good practice, the concept being that in a large garden, people can adopt one border rather than being concerned in looking after the whole garden.

The BTO Birds and Garden Berries Study

Berries and other fruits provide an important resource for many birds during the autumn and winter months, with those available in gardens particularly well used by Thrushes, Starlings, Woodpigeons and wintering Blackcaps. Different berries become available at different times and there is good evidence to suggest that birds favour certain berries over others, often using berry colour to make their selection. Berry colour has often been viewed as an adaptation, increasing fruit detectability to avian seed dispersers, but at least some plants use berry colour to signal specific nutritional rewards. Blackcaps, for example, have been shown to use fruit colour as a foraging signal for anthocyanin rewards; anthocyanin is a form of plant antioxidant.

The range of berry colours present in gardens is often broad and may include colours that are rare or absent from those of native communities within the wider countryside. For example, the range of berry colours seen in garden varieties of the familiar shrub *Sorbus* include yellows, whites and pinks, an extension to the reds and oranges more characteristic of the native Rowan *Sorbus aucuparia* and related species. Could the presence of these differently-coloured varieties influence berry selection by birds within the garden setting?

¹⁷ Gardening for butterflies, bees, and other beneficial insects

This is one of the key questions that a new BTO study is seeking to answer. The Birds and Garden Berries Study, which runs throughout this winter, is the first large-scale study of how birds use berries and other fruits within the nation's gardens. By recording which berries are available to birds throughout the winter, coupled with observations of which birds are taking berries and when, the BTO's Garden Ecology Team hopes to build up a picture of the garden berry resource and its use.



Another aim is to examine how birds use the berries of introduced plants. If introduced plants produce berries that are favoured by birds, perhaps because they ripen at a time when few native berries are available or because they offer greater nutritional rewards, then this might increase the likelihood of dispersal to sites away from gardens as the birds move about. This could have implications for native plant communities, perhaps increasing the chances that alien plants, like some *Cotoneaster* and *Berberis* species, could become more widely established away from gardens.

The results of this work should also provide information to support advice to wildlife gardeners about which shrubs to plant when seeking to attract birds. For more information on the study visit www.bto.org/gbw or request a survey pack from Birds and Garden Berries Study, the Nunnery, Thetford, Norfolk, IP24 2PU. Email gbw@bto.org



Pesticide Action Network UK
Bee Declines
and the Link with Pesticides

The Pesticide Action Network UK have produced a new Bee-centred website at <http://bees.pan-uk.org/home> and an introductory booklet and a set of 8 factsheets on the issues of neonicotinoid pesticides and pollinator decline. You can download them at: <http://bees.pan-uk.org/what-can-you-do>

PAN UK has set out a 12 point call for action:

PAN UK 12 point call for action on bee-toxic pesticides

UK government:

1. Immediate and urgent independent review of the latest science and recent conclusions about the flawed EU risk assessment of neonicotinoids currently on the market.
2. Moratorium on UK approvals and use of neonicotinoids in agricultural, ornamental and amateur garden sectors until proven not to be causing harm to pollinators.
3. Commit to and support Friends of the Earth's call for a National Bee Action Plan.
4. Build more options into entry-level agri-environment schemes to encourage farmers to adopt more Integrated Pest Management (IPM) methods, especially biological control, which will reduce dependency on pesticides – especially as an 'insurance' treatment.

Food and farming sector:

5. Food retailers to put neonicotinoids onto 'restricted' lists within their own company standards and plan how to phase in safer, IPM and organic strategies while ending the use of neonicotinoids across their global supply chains.
6. Practical research with farmers on IPM and organic strategies for replacing neonicotinoids, with a focus on oilseed rape, fruit and vegetable uses.
7. Training and advice for farmers and crop consultants on effective IPM strategies based on agroecology and smarter cropping system design
8. Collaboration between farming, retail, research and advisory, government agencies, beekeeping and civil society organisations to reduce reliance on pesticides and phase in ecologically-based Integrated Production approaches.

Ornamentals and amenity sector:

9. Ornamentals and garden supply sector to end the use of neonicotinoid treatments on pot plants.
10. Parks, local authorities and other amenity users of neonicotinoids to end their use and replace them with ecologically-based IPM strategies.

Amateur gardening sector

11. Immediate suspension of sales to the public of garden products that contain neonicotinoids.
12. Offer gardeners alternative, organic products and advice for managing insect pests.

It's worth recording that the guidance notes that: "Planting bee-favourite plants in gardens, parks and open spaces can expand pollinator foraging in urban and rural landscapes."

Garden designer calls for better large garden advice.

Forum member Rick Minter (Editor of the British Association for Nature Conservation's journal ECOS¹⁸) has sent me this October 2012 press release.

Leading UK garden designer Andrew Fisher Tomlin¹⁹ has made a call for more advice to be available to those people with larger gardens to encourage them to make productive use of their asset and not sell off for development.

Andrew said "As a company we are lucky enough that much of our work is in the green belt around London but increasingly we are finding clients are daunted by the prospect of keeping

¹⁸ http://www.banc.org.uk/?page_id=21

¹⁹ See <http://www.andrewfishertomlin.com/index.htm>

up a large garden. It might seem like a great problem to have but eventually some of these people start thinking it would be better to sell off part of the garden to developers and whilst we need space for new homes we are also losing a great natural asset.”

Fisher Tomlin believes that whilst there is plenty of focus on small garden design and landscaping there is a growing need to support large garden owners. “Often the owners of these gardens are coming up for retirement and want the tools to know how to look after the garden as they get older. There are some great organisations like Thrive helping people carry on gardening but more advice on low maintenance ideas would help enormously.”

Andrew’s top five tips for reducing the maintenance and cost of a large garden include:

- Cut out weekly lawn cutting by establishing longer grass areas, planting wild flower plugs and bulbs to encourage wildlife.
- Turn over neglected areas of the garden to orchard trees.
- Share your garden with young people who don’t have their own garden on the basis of sharing the produce that they harvest.
- Introduce more shrubs into borders to reduce the maintenance that has been created by the trend towards big perennial borders.
- Plant with water wise methods using dense planting to retain moisture in the ground and cut down the need for irrigation.



RHS PERFECT FOR POLLINATORS WILDFLOWER LIST

The excellent RHS *Perfect for Pollinators* database of horticultural plants valuable for pollinators has been supplemented by a parallel resource on native species. Both lists are available from www.rhs.org.uk/Gardening/Sustainable-gardening/Plants-for-pollinators

The wildflowers lists cover common gardening situations including:

- Short grass, up to 15cm
- Medium height grass, up to 50cm
- Long grass, above 50cm
- Hedges, shrub borders and woodland edge
- Disturbed ground
- Flower Beds
- Ponds, pond margins and wet soils
- Shingle/gravel garden

The recommended species are annotated by habit as Tree, shrub, climber, bulbs and corms, annual, biennial or herbaceous perennial.

Honey yields down during the last wet summer

Forum member Steve Alton, Principal Consultant at FlowerScapes²⁰ has sent me this story showing the impact of last year's bl**dy awful summer on honeybees,

'...And is there honey still for tea?'

Possibly not this year, as results from the British Beekeepers' Association Annual Honey Survey show that UK yields are down a staggering 72%, with 88% of respondents citing the poor weather as the main reason. Britain's beekeepers have endured a desperately difficult summer with average honey yields down to just eight pounds per hive, compared to a yearly average of 30 pounds. Many experienced beekeepers are describing 2012 as their "most difficult beekeeping year ever".

The bad weather impacts bees in two ways. It affects flowering and nectar production, meaning there is less food available for the bees. It confines the bees to their hive where, instead of foraging, they are forced to eat their stored honey to survive. This means that the colony may enter the winter with insufficient honey to make it through until spring, unless beekeepers provide supplementary food.

All of this means that it is more important than ever to provide a landscape rich in food sources, so that those days when the bees are able to forage are as productive as possible.

In a country where we have lost 97% of our lowland flower-rich meadows and where our road verges are managed by repeated cutting throughout the year, it is vital that we create areas where bees can feed quickly and easily, without having to fly for miles looking for nectar hot-spots. Road verges, roundabouts and parks are all ideal areas where 'bee banquet' flower mixes could be sown to provide pollen and nectar for a significant part of the year. And the beauty of it is, such schemes not only look fantastic, they save money.

Regular mowing of amenity grassland costs around £1867 per hectare, compared with just £730 per hectare for a meadow-style flower scheme²¹. Mowing is also roughly one hundred times more polluting than driving a car. Ornamental bedding plants are even worse; as well as often having no pollen or nectar for bees, they cost around £60-£65 per square metre. That's £650,000 per hectare!

[Steve Alton suggests -- Go on - sow some FlowerScapes. You know it makes sense.]

Latest research suggests Sedums may not be best for green roofs.

Researchers in the latest edition of the online journal Building and Environment are suggesting that sedums may not be the best performers for helping cool air temperatures. The research, carried out with funding from the Royal Horticultural Society (RHS) and Fundacao para a Ciencia e a Tecnologia (Portugal), looked at the possibility of using different

²⁰ <http://www.flowerscapes.org.uk/>

²¹ See Steve Alton's paper "Parks and Pollinators – Lessons from Germany" in the June 2012 Conference proceedings

plants for green roofs²². The most popular currently used is *Sedum* but the researchers also looked at *Stachys byzantina*, *Hedera hibernica* and *Bergenia cordifolia*.

Enhancing a city's green infrastructure is often considered a means to help address a number of environmental problems associated with built-up areas. It is now accepted that air temperatures in urban areas are higher than in surrounding rural areas, a phenomenon called the 'urban heat island effect'.

This increase in air temperatures is largely due to vegetation being replaced by dark and impervious surfaces. Increased vegetation can therefore help reduce urban temperatures and also reduce the energy needs of buildings through their insulating properties. In Northern Europe vegetation is considered vital to reducing air temperatures on a city-wide scale. The research looked at three key factors:

- the effect of water availability on each of the species' and leaf-surface temperatures;
- the ability of each type of plant to reduce air temperatures above the canopy; and
- the effect of these plants on ground cooling, and therefore potentially on the cooling of the building.

The research showed significant differences in the leaf temperatures between the plants. *Sedum byzantina*, for example, had the lowest leaf-surface temperature when exposed to high air temperatures on clear sunny days.

"We would suggest, based on the results of this work, that choosing which plant to use on a green roof should not be decided entirely on what survives in a shallow substrate," says RHS scientist Tijana Blanusa. "Building designers should give greater consideration to supporting those species that provide the best all-round environmental benefits. This may mean introducing some form of irrigation system and deeper substrates to grow in – which in turn will have an effect on structural-strength decisions."

Previous research in the UK, based on model predictions, has shown that increasing green space such as parks, gardens and green roofs by 10% would reduce summertime air temperatures in the region of four degrees²³.

With the climate getting warmer, gardeners and architects will play an even more important part in helping reduce the effects. "Getting planting right in urban spaces, which can be very limited, is particularly important," says Tijana. "But the advantage is that it not only can have a major effect in helping reduce urban temperatures but will also provide other environmental benefits – such as increased biodiversity and the collection of excess intense rainfall, thus lowering flooding risks."

[The poor performance of Sedum on green roofs was discussed by Dusty Gedge at the last Forum Conference. I'll be writing this up as soon as I can find time Steve]

²² "Alternatives to Sedum on green roofs: Can broad leaf perennial plants offer better 'cooling service'?" by Tijana Blanusa, M. Madalena Vaz Monteiro, Federica Fantozzic, Eleni Vysinib, Yu Lib and Ross W.F. Camerond. The report can be found at - www.sciencedirect.com/science/article/pii/S0360132312002132.

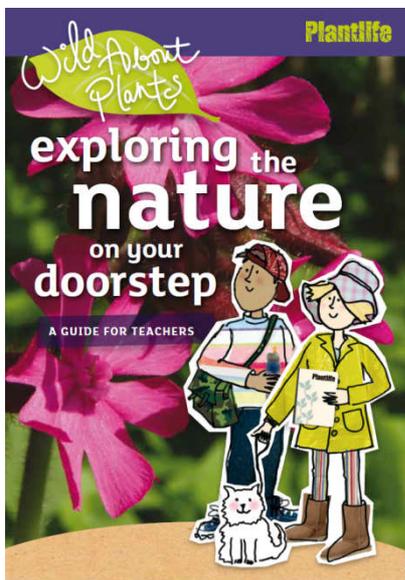
²³ Gill SE, Handley JF, Ennos AR, Pauleit S (2007) Adapting cities for climate change: the role of green infrastructure. *Built Environment* 33; 115–133.



There is still a little time left to book into this year's **Herpetofauna Workers Meeting** which is being held at the Edinburgh Conference Centre at Heriot-Watt University on Saturday 26 & Sunday 27 January 2013.

You can look at the excellent (and modestly priced) programme at : www.arc-trust.org/downloads/HWM%20programme%202013.pdf and you can make a booking through <http://www.arc-trust.org/hwm/>

Plantlife's new education leaflet



Plantlife's Wild about Plants educational project has produced a new booklet. "Exploring the nature on your doorstep" provides ideas for teachers and those working with children in urban parks and is based on experience with primary schools across Sefton Metropolitan Borough in Merseyside. You can download the booklet from : www.wildaboutplants.org.uk/resources/

I was intrigued by the statistics below, garnered from Plantlife's research conducted with children in years 4-6 who were involved in the Local Schools' Partnership.

- 94% of children experience positive emotions when learning in the outdoors
- 93% of children play in their local park
- 65% of children play most often either in their street, home or garden
- Only **half** could identify a poppy compared with **81%** who can identify a daisy
- 75% of children could identify nettles whilst **85%** could not identify clover
- 42% have never eaten a blackberry
- 73% have not told the time with a dandelion clock
- 67% have made a daisy chain

Wales first to legislate on children's play opportunities

Thanks to Woody Caan for sending me this press release from 2nd November.

The Welsh Government is taking a global lead on promoting the importance of children's play and for the first time, legislating to place a duty on local authorities to assess the sufficiency of play and recreational opportunities for children in their areas.

Today regulations and statutory guidance for play "sufficiency assessments" come into effect, setting out criteria for assessing play opportunities in each local authority area: audits of open spaces, play and recreation provision and other considerations including traffic, transport and community initiatives²⁴. The assessments will be used to develop local authority action plans to improve play opportunities for all children across Wales. The deadline for the completion of assessments is 1 March 2013.

Deputy Minister for Children and Social Services, Gwenda Thomas said:

"Wales is already leading the way on promoting children's rights and the articles of the United Nations Convention on the Rights of the Child. There is no more important right, than the right for children to enjoy the freedom and enjoyment of play. It is essential we guarantee the availability of places that are safe and freely available, for children to play, now and in years to come.

Play is vital for children's development. Research tells us that play benefits children's health, their ability to make friends and understand themselves and others. Play can contribute significantly to their emotional, physical and cognitive development. It also has a role in tackling poverty, offering life experience and helping children to learn resilience during difficult times.

It's good for children but also benefits their families and the whole community. These regulations show that Wales values its children and takes their rights seriously."

Mike Greenaway, Director of Play Wales says:

"Play Wales welcomes the commencement of the duty that requires all Local Authorities to assess the sufficiency of play opportunities in their area. It is genuinely ground breaking. Wales has had a national Play Policy since 2002, and this development demonstrates a commitment by Welsh Government to ensure that government policy is translated into actions that make real differences for children in their own streets and communities.

"Playing contributes to the wellbeing and resilience of children. Having welcoming places, enough time and friends to play with every day, is of great importance to all children. When asked what is important to them, children consistently say playing with their friends – outdoors; this duty will help them.

²⁴ <http://www.playwales.org.uk/eng/sufficiency>

"As adults we should all welcome this new duty. It is a large piece of the jigsaw of changes we need to make that will enable Wales to become a nation where we recognise and provide for every child's play needs."

This new legislation must take into account the importance of outdoor play in relatively natural surroundings - exactly the situations described so inspirationally by Sue Gutteridge in her talk "From Green Deserts to Play Landscapes" in the proceedings of the June 2012 Forum Conference. Properly implemented, this legislation could be a real gain for children and wildlife alike.

Drinking Chocolate can improve Urban Biodiversity



Many thanks to Kim Richards of Kent Wildlife Trust for alerting me to a potential new source of funding which could certainly be used by local groups to run wildlife gardening courses or workshops.

Galaxy tell us:

We are looking to help small, local community based projects and community minded people through our GALAXY Hot Chocolate Fund. From January 7th 2013 to March 31st 2013, we are seeking to donate sixty £300 awards to help people or groups with their

community programmes. Please check out www.hotgalaxywarmheart.com for more information. *AND they say:*

We produce a full range of hot chocolates and if you think that some free jars would help out then please do get in touch by emailing hotgalaxy@escapadepr.com

Green Infrastructure in Worcestershire

Thanks to Jan Miller for sending me this link to a 9 minute video about the green infrastructure assets of Worcester, and the planning and coordination needed to maximise benefits to people and wildlife. I'm intrigued by the way a new steel suspension bridge can be viewed as GI because it creates linkage between more conventional GI assets.

www.youtube.com/watch?v=etdPM_mUGK0&feature=youtu.be&goback=%252Eanb_160043_*2_*1_*1_*1_*1_*1



The film was commissioned and produced by the Worcestershire Green Infrastructure Partnership to introduce and promote the concept of Green Infrastructure or GI: the network of natural environmental elements - whether green, blue or brown spaces - that lie between and connects our towns, cities and villages. The film uses a journey along the River Severn through the heart of Worcester city to tell the story of how

planning with GI in mind can deliver multiple benefits to economy, environment and people. More information on the Worcestershire GI Partnership can be found at

www.worcestershire.gov.uk/GI



***Would you like to contribute to a
Wildlife Gardening television series on
BBC One?***

Is your garden teeming with wildlife?

Have you actively encouraged birds, bees, bats and bugs to call your back-yard their home?

Have you and your neighbours got together to create a hedgehog highway?

Have you bought the local garden centre out of bird boxes?

Or welcomed in reptiles with corrugated iron sheets?

Could you share the secrets of how you made your family garden a sanctuary for Britain's favourite wildlife?

If you are as passionate about supporting all creatures great and small as we are, then we want to hear from you!

Whether you have a small city garden, a big country one, a farm or a high-rise balcony - there is so much that can be done to support the wildlife all around us. Our gardens are Britain's most vital nature reserve and we want to find inspirational stories of families who have turned their small patch into wildlife friendly spaces.

Outline Productions are making a new landmark series for BBC ONE about the perilous state of Britain's wildlife and what we can all do to help.

We want the public to follow your lead and make their gardens wildlife friendly. So if you've put in a pond, built a rockery, assembled a log pile or done anything whatsoever to discover the amazing wildlife living on your doorstep, your story could help inspire other British families to do the same.

If you want to find out more and share your experiences with us, then please contact wildlife@outlineproductions.co.uk

New award scheme for “Urban Forestry”

The Royal Forestry Society (RFS) Excellence in Forestry Awards have been expanded to include, for the first time, an urban forestry category sponsored by Forestry Commission England.

Entries are sought this year for the North West and the West Midlands covering Herefordshire, Worcestershire, Warwickshire, Shropshire, the West Midlands, Staffordshire, Cheshire, Greater Manchester, Merseyside, Lancashire, Cumbria and the Isle of Man. At stake are £1000 top prizes and £500 second prizes in each of five categories.

The new Urban Forestry category is for trees and woodlands within urban populations of more than 10,000 to recognise inspiring projects involving trees in any land use including streets, parks, urban woodlands or within social housing. Entries are expected to show a strategic and innovative approach to urban tree management and regeneration.

A separate Schools Award is also being offered to nurseries, schools and educational organisations for inspirational projects relating to trees and woods. No woodland necessary!

Keith Jones, Forestry Commission Area Director for the North West and West Midlands, said:

“There are some outstanding woodlands which deserve wider recognition. Trees and woods are vital in shaping a more sustainable future and in particular we have seen some really innovative schemes in our towns and cities, home to 80% of England's population.

Urban trees help cool and clean the air, create attractive settings for business and investment, improve the quality of life for people and provide places to exercise. We are delighted to support these awards which recognise achievement and also point the way forward.”

Entries must be received by 4 March 2013, and judging will be held in May and June 2013. The woodland awards will be presented at a special event during July.

Further details and entry forms are available by following the RFS Excellence in Forestry 2013 links at www.rfs.org.uk or contact Competition Co-ordinator Trefor Thompson at rfscompetition@boyns.net

I am hoping that the kind people who volunteered to help produce newsletters will be putting the next one together - I will be getting in touch with you. However, please continue to send your news stories, events and discoveries to me for inclusion. In due course, these newsletters could be subsumed into a News section on the website - which at least would help make news of events come out more speedily. Please let me know if you feel the present pattern of newsletters should be continued.

Steve Head wlgf@stephenmhead.com