

**R**esearchers from the Urban Pollinators Project are working with the Department for Environment, Food and Rural Affairs (Defra) to translate their findings into practical advice on how to provide habitat for pollinators in cities, as part of the National Pollinator Strategy.

Following the project's completion, its results are already being put into practice in Bristol, where the research was led. Defra is supporting Bristol in developing a local Pollinator Strategy to make Bristol an exemplary pollinator-friendly city, as part of the city's status as European Green Capital in 2015<sup>1</sup>. This is linked to the National Pollinator Strategy: a ten-year plan of action to tackle the decline in pollinator numbers, published by Defra in November 2014<sup>2</sup>. The local Pollinator Strategy will be used by Defra as an exemplar for other cities across the UK.

Pollinators are vital to support healthy ecosystems and pollinate crops and, in recent years, there has been a reduction in both numbers of pollinators and diversity of pollinator species<sup>2</sup>. Urban areas make up more than 6.8% of UK land<sup>3</sup>, so providing habitats for pollinators in towns and cities plays an important role in efforts to combat their decline. Results from the Urban Pollinators Project show that these areas support more bee species than farmland<sup>4</sup>.

"We're now in a good position for giving evidence-based advice to practitioners about where pollinators are in urban areas," says Professor Jane Memmott at the University of Bristol<sup>5</sup>, lead investigator on the Urban Pollinators Project. "The scientific evidence we're producing can be turned into recommendations which practitioners can implement to make a difference in their cities."

"Development of the Bristol Pollinator Strategy, based on the results of the Urban Pollinators Project, provides a model for putting research findings into practice which other towns and cities can follow," says Ms Jean Smyth, Policy Adviser

on the Biodiversity Programme at Defra. "This is helping to meet one of the five key aims of the National Pollinator Strategy: to support pollinators in towns and cities."

"The fact we can potentially amplify the impact of the Urban Pollinators Project across the country gives us very good value for money supporting a key government priority. Also, as Bristol is European Green Capital in 2015, this message will reach an audience across Europe to demonstrate actions which can be taken in other European cities."



An annual flower meadow in Queens Park, Pudsey. Image Mark Goddard

## IMPACT SUMMARY

Research findings from the Urban Pollinators Project are being used to inform Defra's recommendations linked to the National Pollinator Strategy. During the project, 18,000m<sup>2</sup> of wildflower meadows were planted across four UK cities.

Results of the research are already being put into practice in Bristol, where a local Pollinator Strategy is being drawn up as an exemplar for other UK and European cities.

University researchers, City Councils and Wildlife Trusts in four UK cities collaborated to understand how cities can better provide for the needs of pollinators.

The project ran from 2011 to 2014 and was supported by the Insect Pollinators Initiative, which was funded jointly by BBSRC, Defra, the Natural Environment Research Council (NERC), The Scottish Government and The Wellcome Trust.



Swift implementation of the research findings and the formation of a partnership to develop a local Pollinator Strategy were possible because of the strong links between university researchers and stakeholders already established as part of the Urban Pollinators Project.

“The National Pollinator Strategy is all about working together and inspiring action to support pollinators,” says Smyth. “The researchers’ close relationships with local government and other stakeholders mean their findings are already being put into practice through the delivery of the Bristol Pollinator Strategy.”



A perennial flower meadow in Stanhope Recreation Ground, Leeds.  
Image Mark Goddard

The Urban Pollinators Project ran from 2011 to 2014 and received £1.2M in investment under the Insect Pollinators Initiative. This £9.7M initiative supported projects aimed at researching the causes and consequences of threats to insect pollinators and informing the development of appropriate mitigation strategies. It was funded jointly by BBSRC, Defra, the Natural Environment Research Council (NERC), The Scottish Government and The Wellcome Trust. The aim of the Urban Pollinators Project was to study the biodiversity of pollinators in cities and ways in which their diversity and abundance could be improved. It brought together academic researchers from the Universities of Bristol, Edinburgh, Leeds and Reading; conservation practitioners from the four respective City Councils; three Wildlife Trusts; and taxonomists from the National Museum Cardiff.

To develop the local Pollinator Strategy, stakeholders in Bristol have formed the ‘Greater Bristol Pollinator Network’. Building on the links formed during the Urban Pollinators Project, the network brings together the University of Bristol, the University of the West of England, Bristol City Council, South Gloucestershire County Council, Avon Wildlife Trust, Buglife and Friends of the Earth. It is coordinated by Dr Katherine Baldock at the University of Bristol<sup>6</sup> as part of a NERC Knowledge Exchange Fellowship, which she obtained following her successful involvement in the Urban Pollinators Project.

Memcott has already presented initial results of the Urban Pollinators Project at the Houses of Parliament and provided data to Government on plants that are frequently visited by pollinating insects and the pollinator species most commonly observed in urban areas. The team is also preparing a Policy and Practice Note drawing out conclusions and recommendations for policymakers from the research, which will be published in 2015.

Another outcome of the Urban Pollinators Project was the planting of 18,000m<sup>2</sup> of wildflower meadows in the four cities: 15 meadows measuring 300m<sup>2</sup> apiece in each city. These attracted a high diversity of pollinators including bumblebees, solitary bees, hoverflies, beetles and butterflies. Detailed analysis of the effects of planting these meadows on pollinator numbers and diversity is still being carried out. The beauty of the meadows made them popular with the cities’ residents as well as with pollinators, resulting in the decision to continue replanting many of them. This has left a legacy of wildflower meadows providing a source of food for pollinators, as well as being attractive to local people, in each of the four cities where the Urban Pollinators Project took place.

“It’s not just pollinators that like wildflower meadows,” says Memcott, “people like them too. They’re a bit of a win-win thing.”

## REFERENCES

- 1 Bristol 2015 - European Green Capital
- 2 Department for Environment, Food & Rural Affairs, *The National Pollinator Strategy: for bees and other pollinators in England*. PB14221. 2014. Available at: <https://www.gov.uk/government/publications/national-pollinator-strategy-for-bees-and-other-pollinators-in-england>
- 3 UK National Ecosystem Assessment (2011) *UK National Ecosystem Assessment: Synthesis of the Key Findings*. UNEP-WCMC. Available at: <http://uknea.unep-wcmc.org/Resources/tabid/82/Default.aspx>
- 4 Baldock KC, Goddard MA, Hicks DM, Kunin WE, Mitschunas N, Osgathorpe LM, Potts SG, Robertson KM, Scott AV, Stone GN, Vaughan IP and Memcott J. Where is the UK’s pollinator biodiversity? The importance of urban areas for flower-visiting insects. *Proc R Soc B* 2015;282(1803):20142849. doi: 10.1098/rspb.2014.2849.
- 5 Professor Jane Memcott - University of Bristol, <http://www.bristol.ac.uk/biology/people/jane-memcott/index.html>
- 6 Dr Katherine Baldock - University of Bristol, <http://www.bristol.ac.uk/biology/people/katherine-c-baldock/>