

Gardeners must unite to save Britain's wildlife

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Householders in the UK should be looking beyond their own garden fence to protect vulnerable British wildlife, according to scientists at the University of Leeds.

To encourage urban <u>biodiversity</u>, neighbours should co-ordinate their gardening efforts to create a network of interlinking habitats where birds, bees and mammals can flourish.

"Gardens don't exist in isolation, they link together to form interconnected habitat networks that should be planned and managed in conjunction with parks, nature reserves and the surrounding countryside," said Mark Goddard, PhD student in the Faculty of Biological Sciences at the University of Leeds and lead author of the paper.

"One person may plant a tree or create a pond in their own back garden, but the survival of many of the mobile species that live in towns and cities, such as birds and mammals, is dependent on the provision of larger areas of habitat."

Urban green spaces such as gardens and parks are an increasingly important refuge for wildlife as towns and cities encroach further into the countryside. In Leeds alone, private gardens cover 30% of the total urban area making them a valuable resource for native species.

'Wildlife-friendly' gardening has become more popular in recent years



and there are now an estimated 4.7 million nest boxes and 3.5 million ponds in the UK*. But, according to the researchers, actions by individuals within the boundary of their own back garden are unlikely to make a meaningful contribution to the conservation of biodiversity alone.

"If neighbours in a street were all to coordinate the management of their gardens in a complementary way, for example by planting a continuous strip of trees throughout a swathe of gardens, the benefits to backyard biodiversity will far outweigh the contribution made by one or two households alone," added Mr Goddard.

Professor Tim Benton, Research Dean in the Faculty of Biological Sciences and co-author of the research, said: "We are increasingly finding that the appropriate area needed to best manage biodiversity is greater than the area managed by individuals - the same is true of farms within the countryside - and so the biggest challenge is to find ways that help neighbours to co-operate.

Dr Andy Dougill, final co-author of and Head of the School of Earth and Environment, added: "The key message is that collective action makes a real difference at the city scale. Such co-operation between neighbours to create a 'wildlife-friendly' habitat across groups of gardens can be encouraged by a range of mechanisms. These include top-down financial incentives such as tax cuts or government grants, or bottom-up, community-driven initiatives such as wildlife garden certification schemes."

The research, which is the cover story of February's *Trends in Ecology* and *Evolution* journal, forms part of Mr Goddard's PhD, which looks at how the size, shape and connectivity of gardens affects the diversity of birds, bees and butterflies within them. He is currently working with 90 households across Leeds who are helping in the data collection and



survey process. The research is funded by the University of Leeds Earth and Biosphere Institute Scholarship.

More information: *Davies Z.G., et al. (2009) A national scale inventory of resource provision for biodiversity within domestic gardens. Biological Conservation 142, 761-771.

The review paper entitled: "Scaling up from gardens: biodiversity conservation in urban environments" is the cover story of the February edition of *Trends in Ecology and Evolution*.

Provided by University of Leeds

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