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Insect Pollinators Initiative

Urban pollinators: ecology and conservation

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Urban environments are growing across the UK, and perhaps surprisingly, flower rich oases in otherwise uninviting city habitats can support large numbers of pollinators. For example, 35 % of British hoverfly species were found in a single Leicester garden and honeybees produce more honey in urban Birmingham than in the surrounding countryside. Pollinators supply a crucial ecological service, and finding ways to improve their lot is a major challenge.

This project will answer three questions: where exactly is the pollinator biodiversity in the UK – urban habitats, farmland or nature reserves, where are the hot-spots of pollinator biodiversity in cities and what can we do to improve their diversity and abundance? To answer the first two questions the researchers will look at whole communities of bees, flies, butterflies and beetles that visit flowers, constructing food webs that describe the patterns of flower-insect interactions. To answer the third question they will add flower mixtures high in nectar and pollen to selected city habitats in Bristol, Edinburgh, Leeds and Reading and test whether this increases pollinator species richness and abundance.

The research will provide the data that conservation practitioners working in urban habitats need to conserve pollinators. Seven practitioners are collaborators on the project and the research team will convey their results to the rest of the UK practitioner community via a fully funded practitioners' conference at the end of the project.

This project is in partnership with Dr Graham Stone at the University of Edinburgh, Dr Koos Biesmeijer and Professor Bill Kunin at the University of Leeds and Dr Simon Potts at the University of Reading.