

Cambridge City – The Plight of the Bumblebee

Information provided in this report will be used to showcase your project on the Biodiversity Partnership web pages. Please expand boxes as needed or use a separate sheet.



Project title: The Plight of the Bumblebee

Date of Project report submission: 30th March 2009

Date of Application: May 2008

Sites/Location (if applicable): Cambridge City

Project Objectives

- greater understanding of the bumblebee species and populations present within the city.
- highlight important sites within the city and inform their improved management
- raise public awareness of the importance of bumblebees within the urban environment

Contact:

Name: Iain Webb

Organisation: The Wildlife Trust for Cambridgeshire

Telephone: 01954 713531

Email: iain.webb@wildlifebcnp.org

Please answer the following questions about your project:

If any aren't applicable insert N/A.

For Biodiversity Action Plans (BAPs) please see:

<http://www.cambridgeshire.gov.uk/environment/countryside/natureconservation/action/partnership/baps/>

- * If your project involved habitat work, how much habitat area in terms of BAP habitat has been created/restored (please cross out accordingly)?
A total of 2 acres

Which habitat(s)? Chalk grassland

- * Which BAP species have benefited (or other species)?
 Bumblebees

- * Did the project contribute to other Biodiversity action plan targets and actions? Which ones and how? _____

- * Did the project generate ecological data? Yes No

Has the data been submitted to the Biological Records Centre?

Yes No

If no please state the reason why data has not been submitted. _____

* How many volunteers have been involved in the work? 90

* How many volunteer hours have gone into the project? 120

* Any other information you would like to tell us about? _____

Please provide a summary report of your project:

What worked well, was/were your main successes?

What was difficult/challenging? What lessons have you learnt that could be shared with other projects, can be learnt for future projects?

The inclement weather did not help with suitable survey conditions. Three of the four planned training days were unsuitable. The one training day with good weather attracted 11 members of the public. There was great interest within the newspapers and a live interview was given to BBC Radio Cambridgeshire regarding the survey.

There were always two main aims of the project, gaining an insight into bumblebees within the city by producing records and raising the profile of bumblebees with residents of Cambridge. The number of records were less than was hoped but it shows that the format did work. There were no comments regarding the difficulty associated with doing the survey, only with the number of bees having to be counted. The records that were received did show that those areas of Cambridge that were surveyed did contain the full range of species expected. However, it would be good with any future bumblebee survey to have a larger number of training days. This created a large amount of interest and records.

Are you happy to share this information with other projects? Yes No

Thank you!

Please email this form back to Fabiola Blum,

Fabiola.Blum@cambridgeshire.gov.uk

or post it to

Biodiversity Partnership,
CC1312, Castle Court, Castle Hill,
Cambridge, CB3 0AP



population than those more central sites.

The north west of the city was well recorded but unfortunately the south was not visited at all. Also certain important flower rich sites such as Coldhams Common and West Pit LNR were not visited and would have certainly held good numbers. Hopefully in the future there will be the opportunity for a repeat of a bumblebee survey.

This limited survey shows that Cambridge is important for bumblebees. However it should be stressed that more can be done to enhance and maintain the populations within the city and the surrounding area.

It is hoped to repeat this survey, perhaps on a county scale, in the future. However records are always valuable to help piece together the state of bumblebees within the city and further afield. Please send any further records to the Cambridgeshire and Peterborough Biological Records Centre. Please see details below.



Get involved with species recording

Cambridgeshire supports a wealth of wildlife and, whether it's in your garden or out in the countryside, there is someone that wants to know about it.

The Cambridgeshire and Peterborough Biological Records Centre collates records of all species for use by organisations, authorities, schools and individuals. By submitting your sightings to the BRC, you are contributing data that informs conservation work locally. They are currently appealing for data on ponds.

For more information, visit www.naturenotebook.org.uk or call 01954 713571.

Your local Wildlife Trust protects wildlife and habitats of Bedfordshire, Cambridgeshire, Northamptonshire and Peterborough. We co-ordinate a number of Ecology Groups across this area. These groups of volunteers are trained in surveying and undertake important monitoring work on nature reserves. Survey work covers a variety of species groups including bats and longhorn beetles. For more information visit www.wildlifecnp.org/wtag.htm or call Henry Stanier on 01954 713519.

The Wildlife Trust also organises fun events, work parties and guided walks to promote our work in the local area. For more information about how you can get involved please contact:

The Wildlife Trust, The Manor House, Broad Street, Great Cambourne, Cambs, CB23 6DH.
Tel: 01954 713500 Email: Cambridgeshire@wildlifecnp.org Web: www.wildlifecnp.org

This survey is supported by:



Report produced by The Wildlife Trust for Bedfordshire, Cambridgeshire, Northamptonshire and Peterborough.

Registered Charity no: 1000412

Photo credits: Mark Ricketts, Iain Webb, The Wildlife Trust



Bedfordshire
Cambridgeshire
Northamptonshire
Peterborough



Cambridge City Greenways Project The Plight of the Bumblebee - Cambridge Survey 2008

Introduction

Of the 27 species of bumblebee found in the British Isles, 3 species are now extinct and 15 species have undergone major range contractions. Of the remaining species population numbers have declined. Only 7 species can now be found in and around Cambridge.

The main cause of these extinctions and population declines has been the destruction and fragmentation of habitats essential for bumblebees. These include flower-rich meadows, wetlands, woodlands and hedgerows.

With the reduction of habitats in the wider countryside this has made urban areas and in particular gardens an essential habitat for bumblebees. Unfortunately even here the quality of habitat available in urban areas is changing. Larger gardens are being subdivided with extra houses being built, the use of chemicals and the convenience of decking and hard surfaces is reducing the resources available for bumblebees.

Bumblebees are an essential component of the countryside. Without their pollinating role many wild flower species will not set seed and so some plant populations would decline and disappear. As has been known for a long time honeybees are an important pollinators of crops, but bumblebees are also vital in the pollination of many crops. Runner beans, field beans, tomatoes, peppers, raspberries, strawberries are a few examples of crops that are pollinated primarily by bumblebees.

With this dramatic decline it is essential to understand where the important areas are for bumblebees and to preserve and manage them appropriately. Due to the importance of gardens for bumblebees it is vital to highlight to members of the public how they can contribute to understanding local bumblebee populations and that simple steps can be taken to help preserve their local bumblebees through creating important features in their gardens.

Methodology

The methodology for the survey was taken from a bumblebee survey undertaken by Buglife in southern Essex and north Kent. A recording form was designed, with permission given by Buglife to use the illustrations from the recording form used by them in 2007. These show the five main bumblebee colour 'types' and can be seen on the following pages accompanying the maps. Members of the public were then encouraged to find a flower rich area or garden/amenity grassland/nature reserve etc. on a sunny still day between June and the end of August. Then for twenty minutes they were to count the number of different bumblebee 'types' that visited the flowers. It was stressed that those participating did not need any previous experience. To aid this five training sessions were held at sites throughout the city, where members of the public were



Protecting wildlife
close to home

shown by the project officer how to use the recording form and to identify the different colour types. The records were then submitted to the Cambridgeshire and Peterborough Biological Records Centre and are now available for general use.

Results

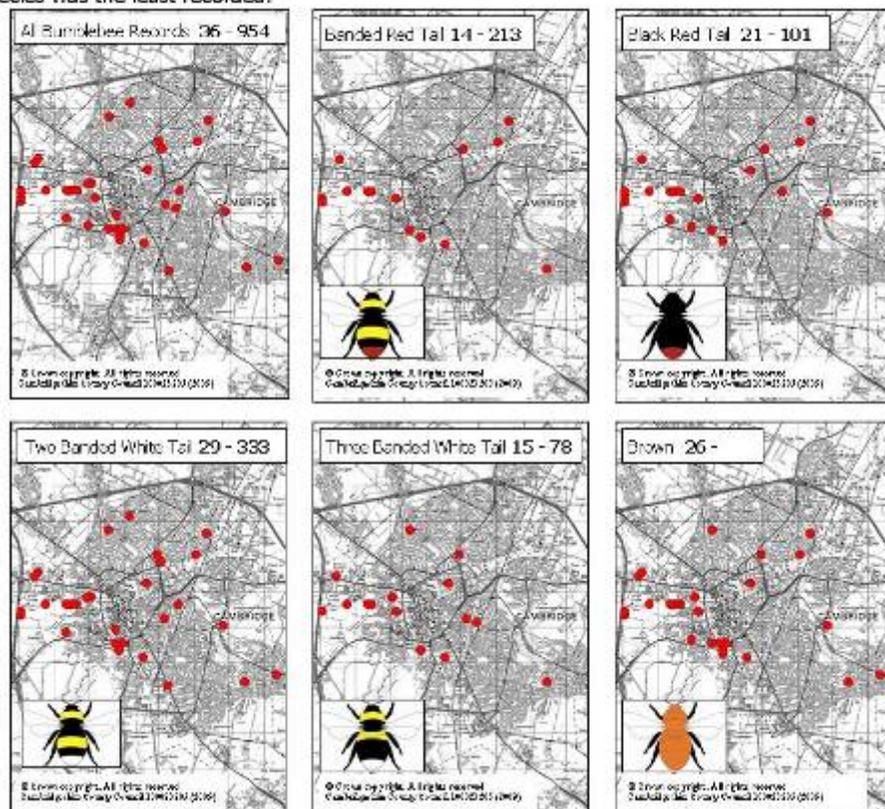
A total of 40 people took part in the survey, sending in 70 record forms. A total of 44 sites were surveyed and of these 36 were in the city. This report will be focussing on those records from the city. The following map shows the sites around the city where a bumblebee survey took place. The numbers correspond to the number of sites recorded and then the total number of individual bumblebees recorded.

A total of 954 bumblebees were counted with all 5 'types' being recorded. A total of 7 species were recorded during the survey. The 6 common species were recorded as well as the nationally scarce red-shanked bumblebee. This was recorded in a garden in the east of the city.

When looking at the results, see maps below, there is quite a variation within the different colour types both in number of sites and the number of individuals.

Banded Red Tail or Early bumblebee - This species was recorded in the least number of sites in the city, but did have a good number of individuals recorded.

Black Red Tail or red tailed bumblebee- A quite wide spread species within the survey but not recorded in correspondingly large numbers. In the Buglife 2007 survey they found that this species was the least recorded.



Two Banded White Tail or buff-tailed bumblebee/white-tailed bumblebee - The most widespread and most recorded bumblebee 'type'.

Three Banded White Tail or Garden Bumblebee - The scarcest bumblebee of the survey. A worrying result regarding its name!

Brown or Common Carder Bumblebee - Like the two banded white tail a common species found in the city, during this survey.

Conclusion

To the knowledge of the project this is only the second bumblebee survey of a defined area involving the public to be run in Britain. It has provided an enormous number of records for the Biological Records Centre and was covered by the Cambridge Evening News and BBC Radio Cambridgeshire.

Unfortunately the weather for the summer of 2008 was unseasonably wet, similar to 2007, and this impacted on the populations of many insects, bumblebees included. This also meant that there were fewer days with ideal conditions for recording bumblebees, three of the four training days suffered from inclement weather.

However the results gained from the survey show that bumblebees are present throughout the city. When foraging for food bumblebees are known to regularly travel at least 1 kilometre from the nest. The map at the top left shows the sites that were recorded from during the survey and shows those areas that are within a 1 kilometre radius of it. The map at the bottom right shows the diversity of bumblebees at each site. A few sites held all five types. These sites were adjacent to open countryside. Because of the limited number of records it is not possible to say that those areas which are adjacent to the wider countryside will have a larger bumblebee

