



Save the WeeBees

Monitoring Report

February 2010



PLANTING
IMPROVING
INSPIRING

www.csft.org.uk

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Executive Summary

Following on from the highly successful “Alarm Bells for Bluebells” Campaign in 2008, Save the WeeBees was designed to keep momentum going in terms of actions within the Central Scotland Forest Trust’s (CSFT) Commitment to Biodiversity, and to build on the new relationships forged and public awareness of the Trust gained during that campaign. Specifically, it was planned to raise awareness of the endangered status of many of the UK’s Bumblebee species, and to promote action to provide habitats that the Bees need within the Forest.

The issue of declining Bee populations has been much in the media throughout 2008 and 2009. The information widely available through agencies such as the Bumblebee Conservation Trust enabled a list of five key goals to be developed. The project took the form of a major marketing campaign, including press releases in local and national press, other media broadcasts such as radio and websites, and corporate and community events.

In addition to this, it was decided to create a series of Bumblebee Reserves across the Forest by organising wildflower plug planting events with schools and community groups. Bumblebee ‘Rescue Packs’ were also developed for distribution around schools in the Forest providing them with everything they needed to create their own Bumblebee haven in their grounds.

The campaign was a great success, it delivered progress on each key goal can therefore be considered to have made a marked contribution in the task of raising the profile of Bumblebees in Central Scotland, and securing suitable habitats for future generations to enjoy. Additionally, there were noticeable other benefits such as helping CSFT to build on existing, and develop new relationships with partners, schools, community groups and the media.

Acknowledgements

This campaign was only possible through working closely with all of CSFT’s partner agencies, and their kind provision of time and resources. Funding for the project came from The Tree Council, Falkirk Council, East Dunbartonshire Council, and SNH. Particular thanks go to the Bumblebee Conservation Trust, who provided expert advice and many of the images used throughout the Campaign. We would also like to thank the 13 schools and 11 community groups who participated in the planting events.

1. Introduction

Background to the Project

The UK & Ireland has 25 species of native Bumblebee. Three species have recently become extinct, and 8 of our remaining ones are listed as 'critically endangered' and are UK Priority species. It is estimated that we are losing 30% of our Bee colonies each year.

Bumblebees and Honeybees are a vital part of our ecosystem, with estimates of a third of our food being solely reliant on pollination by Bees. Many crops, such as broad beans, runner beans and raspberries are heavily dependant on Bee pollination, so much so that Bees contribute around £1 billion a year to the UK's economy. There have also been some suggestions that if Bees were to die out, the human race would only survive for approximately 6 years before running out of food, without intensive genetic modification. It is therefore imperative that we save the creatures from extinction

CSFT's 2009 campaign: Save the Wee Bees was designed with a dual purpose in mind – to raise awareness of the plight of the Bumblebee and to actively plant some wildflower meadows in the Forest area.

Key Goals

Through discussion with members of CSFT staff and stakeholders, a list of five key goals was developed. Each of these goals directly relate to the central objective of the project – to help save the UK's Bumblebees. The five goals are:

1. Engage with and inform Forest residents on the plight of the Bumblebee
2. Inform people on how to identify Scottish Bumblebees
3. Inform people on how they can help the bumblebee in their own garden
4. Train people in planting wildflowers
5. Create wildflower reserves within the Forest

Monitoring Indicators

To provide evidence for progress on each goal a number of indicators were selected. These indicators are measurable elements of the project. Some are numeric figures derived from in-house CSFT monitoring procedures, others necessitated interaction with the general public and participants at events and some are much more visual and qualitative including photographic evidence.

The measures chosen are listed below under the appropriate goal. Note that some indicators such as *number of guides/activity packs distributed* are listed under more than one goal.

1. Engage with and inform Forest residents on the plight of the Bumblebee

- Number of website hits to Bumblebee web page
- Number of Bumblebee Guides/Activity packs distributed
- Number of planting events
- Number of schools, community groups etc engaged
- Number of partner organisations engaged
- Correspondence with general public (letter or email)
- Photos documenting engagement

2. Inform people on how to identify Scottish Bumblebees

- Number of Bumblebee Guide PDF downloads
- Number of Bumblebee Guides
- Number of rescue packs given to schools and at events

3. Inform people on how they can help the Bumblebee in their own garden

- Produce guidance on plants and flowers that attract Bumblebees
- Provide packets of wildflower seeds
- Produce other gardening advice that is sympathetic to Bumblebees
- Work with Buglife and Bumblebee Conservation Trust to produce Bumblebee nest boxes for suitable sites

4. Train people in planting wildflowers

- Number of people attending planting events (both CSFT and any other partner agencies)
- Photos documenting planting training given

5. Create wildflower reserves within the Forest area

- Number of wildflower reserves planted
- Number of seed packets given away at displays and events (e.g. B in the Park & Royal Highland Show), or through the website request – postcodes of destinations
- Location of planting events and number of wildflowers planted
- Photos documenting location before, during and after planting

2. Findings

Results

The table below shows the overall results of the monitoring exercise

1. Engage with and inform Forest residents on the plight of the Bumblebee	
Number of website hits to Bumblebee web page	9,947 Page views 7,095 Unique views
Number of Bumblebee Guides/Activity packs distributed	4,000 Bumblebee guides, 14,676 Activity booklets (<i>to date: 02/02/2010</i>)
Number of planting events	19, including launch event
Number of schools, community groups etc engaged	24 (plus 251 school packs)
Number of partner organisations engaged	9
Correspondence with general public (letter or email)	e-mail enquiries to the savethewebees email: 82. Seed packet requests: 1070 (min) Direct e-mail requests: 10
Photos documenting engagement	See photos a, b, c & d
2. Inform people on how to recognise Scottish Bumblebees	
Number of Bumblebee PDF downloads	Views 315. Unique Views 254
Number of Bumblebee Guides distributed	4,000 (see appendix 3)
Number of rescue packs given to schools and at events	251 to schools, 5891 at events and planting days (<i>to date: 02/02/2010</i>) See photos e & f
3. Inform people on how they can help the Bumblebee in their own garden	
Produce guidance on plants and flowers that attract Bumblebees	Bumblebee Guide booklet produced and distributed (see appendix 3)
Provide packets of wildflower seeds	25,000 wildflower seed packets given away at events, in school packs and via the website request service
Produce other gardening advice that is sympathetic to Bumblebees	Gardening for Wildlife leaflets distributed at corporate events; demonstration gardens at RHS and B in the Park; web articles/press releases on gardening for bees.
Work with Buglife and Bumblebee Conservation Trust to produce Bumblebee nest boxes for suitable sites	Advice on Bumblebee nest sites and the creation of nesting opportunities highlighted in literature

4. Train people in planting wildflowers	
Number of people attending planting events (both CSFT and any other partner agencies)	915
Photos documenting planting training given	See photos g, h & i
5. Create wildflower reserves in the Forest area	
Number of wildflower reserves planted	14
Number of seed packets given away at displays and events (e.g. B in the Park & Royal Highland Show), or through the website request – postcodes of destinations	25,000
Location of planting events and number of wildflowers planted	8,800 wildflowers planted. See map 1 for location and types of campaign events
Photos documenting location before, during and after planting	See photos k - r

Analysis

At the height of the campaign over 12.21% of all CSFT web traffic was Bumblebee related. In fact to date there have just over 9,800 hits to Bumblebee specific CSF web pages. Of these, almost three quarters were unique views – that is individual visitors. So we can say with some robustness that 7,068 people have viewed Bumblebee specific information on the CSF website since the start of the campaign. We know that visitors spent around 65 seconds per page looking at Bumblebee information on our website, and that means that we have generated well over 170 hours worth of Bumblebee activity on our site.

These figures clearly show that the Save the WeeBees publicity was very successful in stimulating an interest in the subject and by visiting these pages, people were able to view the information provided on the issue, and download information of interest to them.

In addition to direct correspondence with CSFT staff at events or on the phone or email, we received 82 enquiries to a generic Bumblebee email address, including at least 1,070 requests for wildflower seeds (some request e-mails may have been deleted as the inbox became fuller).

In total, CSFT obtained nearly 9,000 Bumblebee friendly wildflowers from 4 suppliers within Scotland, guaranteeing Scottish sourced material. Just over 6,800 of these were planted by CSFT and their volunteers during the 19 planting events organised. The remaining plants were donated to schools and community groups for their own planting events or conservation days (see Map 1). In addition to the plants, over 23,000 packets of Bee-friendly wildflower seeds were given out at events, to community groups and via the online request service provided on CSFT's website.

BumblyAid Kits (photos f & g) were distributed to 251 schools in the Forest area, the majority of these were mainstream primary schools, however, packs were also requested by secondary schools, nurseries, special needs schools and a couple of Brownie packs. Several schools also took part in wildflower planting events either in their school grounds (e.g. Blacklaw Primary School) or in local nature parks (e.g. St Patrick's Primary School)(photos k – r).

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The remaining planting events were undertaken in partnership with conservation agencies (e.g. Historic Scotland) or Biodiversity Action Plan Partnerships (e.g. North Lanarkshire LBAP), or as part of regular conservation/open days with community groups such as Woodhill Community Group and Friends of Merkland Nature Reserve (photos n & p). Over 900 people attended the planting events and were able to plant Bee-friendly wildflower as a brief instruction session (see photos h - j)

Finally, 5 corporate events were also attended with a range of Save the WeeBee promotional materials and displays to highlight the campaign and raise awareness of the plight of the Bumblebee to people who wouldn't necessarily attend a planting day. These events were the Campsie Show, Kirkintilloch Canal Festival, B in the Park, The Royal Highland Show and Bioblitz (photos b – e). A total of 4,250 activity magazines, 1,265 identification guides, and 12,345 wildflower seed packets were given away at these 5 events, along with some 6,750 bags, 4,600 pencils, 2,260 badges and 1,000 Bee bugs. Promotional materials were also provided to several other events that CSFT were unable to attend with displays, for example, Gardening Scotland; and given away as goodie bags to planting event attendees at, for example, Summerlee Heritage Centre open day and Cumbernauld Park open day.



a. Launch event at Shotts Nature Park with Primary 5 from St Patrick's Primary School



b. Save the WeeBees display stand at the Royal Highland Show



c. CSFT "Save the WeeBees" campaign marquee at the Royal Highland Show



d. CSFT Save the WeeBees stand at the Royal Highland Show

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e. CSFT Save the WeeBees stand at the Royal Highland Show



f. Contents of the BumblyAid Kit sent to Schools in the Forest area



g. BumblyAid kit sent to schools in the Forest area



h. Woodhill Open Day, Bishopbriggs, East Dunbartonshire



i. Planting with Twecher Primary School, East Dunbartonshire



j. Planting with Twecher Primary School, East Dunbartonshire

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k. Blacklaw Primary School Eco Day, East Kilbride



l. Planting with Larbert Primary School Eco-committee at Broomage Greenspace, Falkirk



m. Planting with Broxburn Academy pupils at Broxburn Community Woodland, West Lothian



n. Open day at Cumbernauld House Park, North Lanarkshire



o. Planting day with pupils from Hallglen Primary School and Nursery at Hallglen Haven, Falkirk



p. Merkland Nature Reserve open day, Kirkintilloch, East Dunbartonshire

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q. Planting event with several classes of pupils from Twecher Primary School, East Dunbartonshire

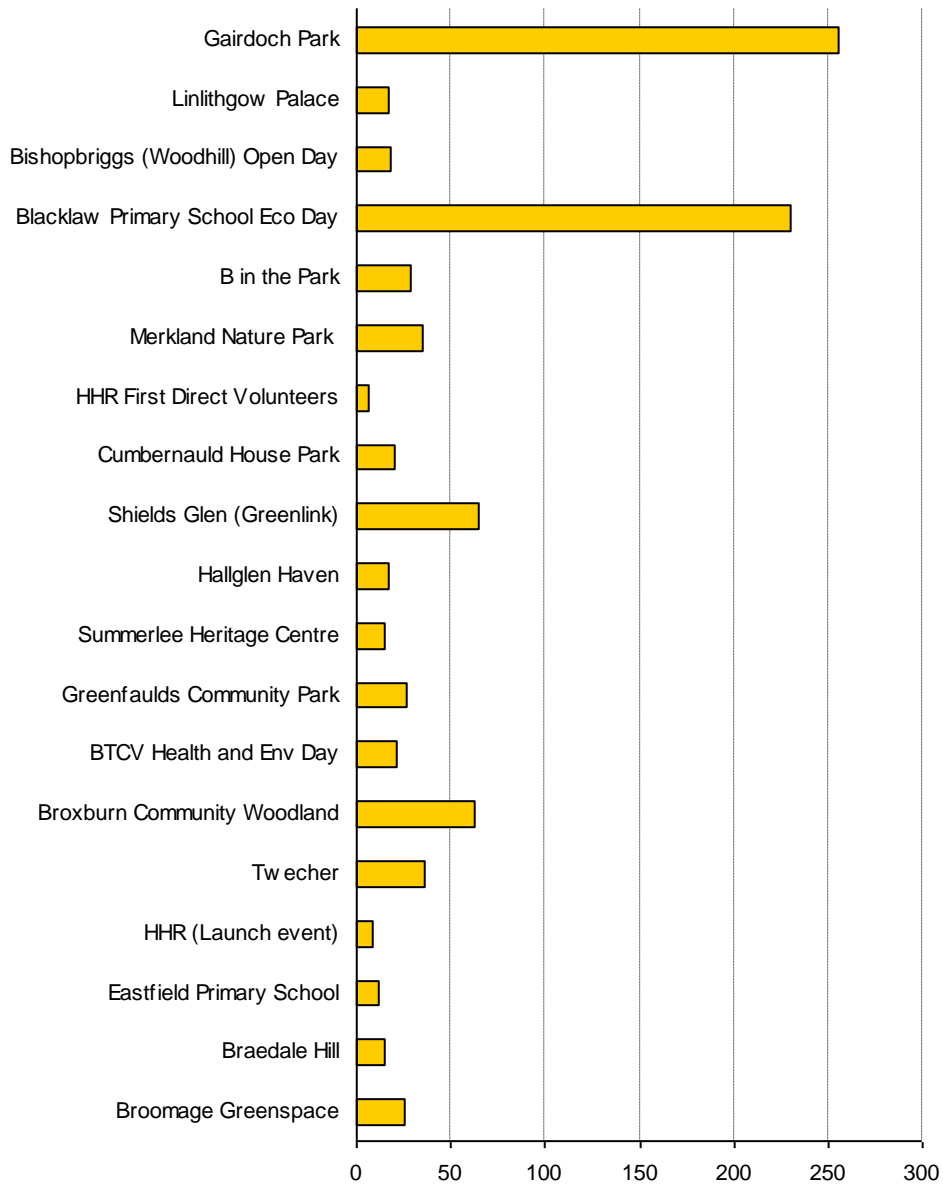


r. Wildflowers planted during Summerlee Heritage Centre Open Day

Planting Event Results

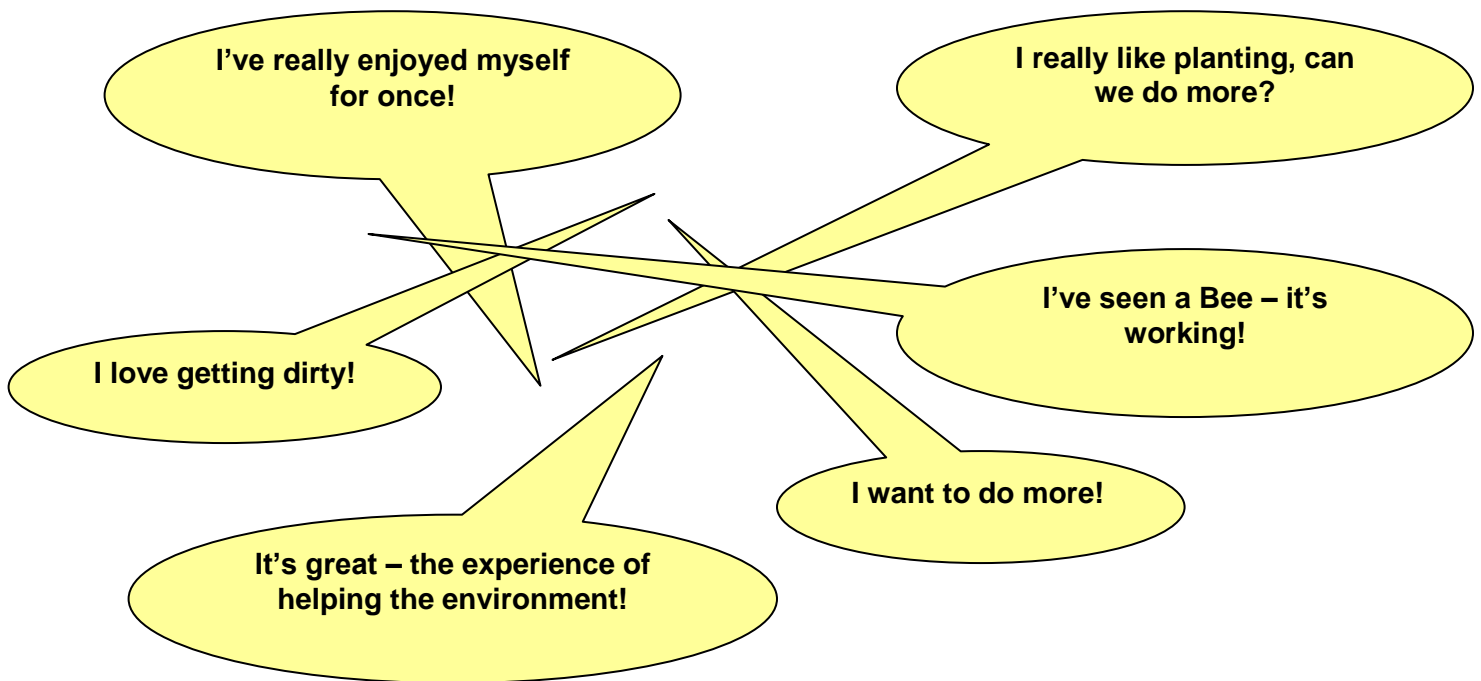
Our event monitoring records indicate that over 900 people attended events and were taught about the plight of the UKs bumblebees. They were all shown the how to plant wildflowers and taught about the types of plants bumblebees prefer. At least 6,500 plug plants were planted at these CSFT supervised events lasting a combined total of 67 hours.

Chart 1: Number of volunteers at planting events



As shown in Chart 2 below, none of the attendees to the events were aware that the UKs Bumblebees were endangered. Furthermore, before the event the majority of attendees did not know about the types of plants and flowers that Bumblebees needed to prosper (Chart 3). Just over a third of attendees however, did know how to plant wildflowers (Chart 4). After the event, this increased to 83% of attendees, with 80% also deciding that they knew more about Bumblebees and their habitat requirements (Charts 5 and 6). Everyone attending the events enjoyed it (Chart 7), with no one rating it Poor or Terrible. Further evidence of this is provided in the selected comments included in the *Planting Voices* section shown below.

Planting Voices



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Chart 2: Before you came to this event, did you know that native Bumblebees are endangered?

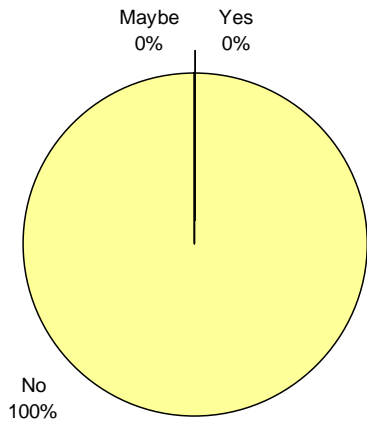


Chart 3: Before you came to the event, did you know about the types of plants that Bumblebees need?

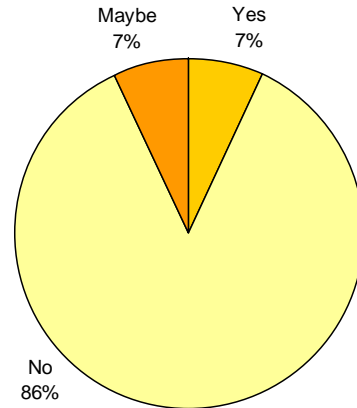


Chart 4: Before you came to the event, did you know how and where to plant wildflowers for Bumblebees?

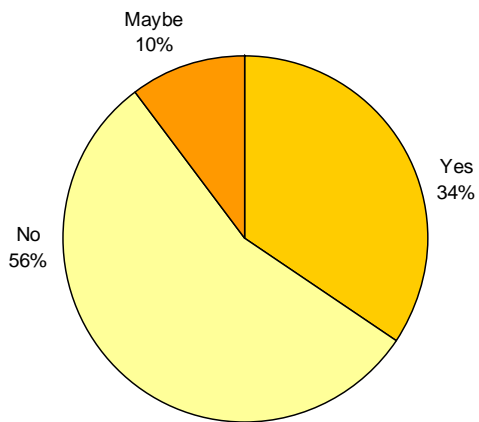


Chart 5: After today's event, do you know about the types of plants that Bumblebees need?

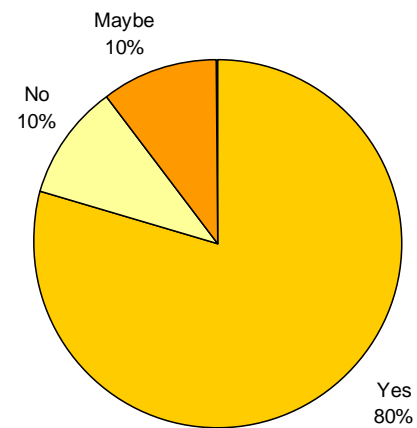


Chart 6: After today's event, do you know how and where to plant wildflowers for Bumblebees?

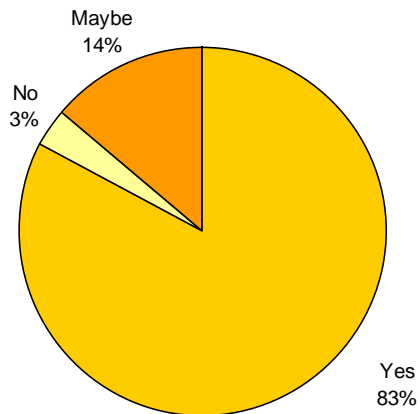
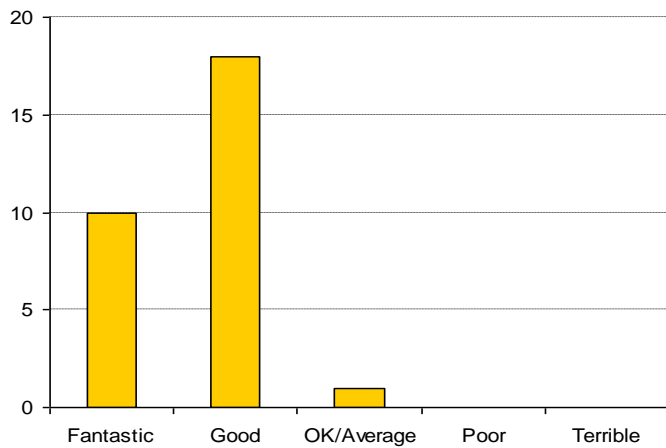


Chart 7: How would you rate today's event?



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Unfortunately it was not possible to gather a completed event monitoring from everybody who attended the planting events. This was mainly due to the sometimes chaotic logistics of working with children and also people with learning disabilities. However, a point was made to encourage teachers and carers to fill in forms, so that at least one form was used for each session. These formed the basis of Charts 2 to 7 shown above. In short, answers to the questions show that the events were remarkably successful in informing people about the problems with the UKs Bumblebee populations, and also teaching them about the types of plants Bees need, how to plant them, and what to do in their own gardens. Furthermore, the responses and several images clearly indicate that attendees found the event to be an enjoyable and enriching experience.

In Spring and early Summer 2010, all the sites planted during the campaign were revisited either by CSFT staff, partner organisation staff or community groups. Despite it often taking several years for plant diversity to increase following plug planting, the majority of the sites showed that the planting had been successful, with many showing a greater range of flowering plants, especially bee-friendly ones. Unfortunately, a couple of sites only showed a small increase in the number of bee friendly plants, probably due to out-competition from existing weeds and grasses that weren't managed during the autumn; and one site had been mown during routine management of the adjacent park.

Save the WeeBees enabled CSFT to build on the new relationship with partners, organisations and schools formed through the Alarm Bells for Bluebells campaign in 2008. Additionally, we were able to build more new relationships and contacts, particularly with schools in the Forest through the creation and distribution of the BumblyAid kits. We were able to continue to work with community groups and schools that have not been involved with CSFT before, and to keep momentum going with practical relationships with partners such Historic Scotland and several Council Ranger Services.

Site Images After Planting

Planting with Twecher Primary school – at the beginning.....



.....and a year after



Other images in full bloom.



u. B in the Park, Motherwell.



v. Broomage Greenspace, Falkirk



w. Cumbernauld Glen, North Lanarkshire



x. Gairdoch Park, Falkirk



y. Merkland Local Nature Park, Lenzie



z. Twecher, East Dunbartonshire

3. Conclusions

Performance on Key Goals

Through discussion with members of CSFT staff and stakeholders, a list of five key goals was developed. Each of these directly relate to the central objective of the project – to help Save the WeeBees.

The campaign was successful in **engaging with Forest residents on the issue**, the Bumblebee section of the website achieved significant interest with over 7,000 unique hits generating an estimated 170 hours of browsing activity. In addition, 4,000 leaflets were distributed, along with 15,000 activity magazines, 251 school packs and 25,000 wildflower seed packets conveying the key message that Bumblebees are in danger and there were 82 email enquiries regarding the subject.

Regarding using the media (website, display boards and leaflets) to **train people to identify different species of Bumblebees**, it is impossible to estimate how many people actually followed the rather technical description and subtle differences between some of the species, however, the distribution of 4,000 of the information booklet in Appendix 3 will have had an effect, as will the planting events, which offered the chance to convey this information to over 900 people.

The great successes of the campaign were the **planting events**, and the **school packs**. These were not only an excellent platform to teach people about the plight of the Bumblebee, they also provided over 900 people with practical experience of planting a wildflower meadow and 251 schools with the resources to grow their own. Undertaking such direct conservation activity was a new experience to many of these people and as shown in the images and survey results everybody enjoyed the activity.

The last goal was to **create Bumblebee reserves around the Forest**. Nearly 9,000 Bumblebee-friendly wildflower plug plants were purchased through this campaign, more than half of which were planted at CSFT lead events, the rest were donated to schools and community groups for their own events or grounds. All the sites involved in planting event were visited in Spring and Summer 2010, the vast majority showing a high planting success rate.

In conclusion, the campaign has performed well on the key goals and can therefore be considered to have made a marked contribution in the task of raising awareness of the plight of the native Bumblebee to inhabitants and visitors to Central Scotland.

Appendices

Appendix 1: Save the WeeBees Event Monitoring Form



Monitoring Sheet for 'Save the Wee Bees' as part of CSFT's Plight of the Bumblebee Campaign

Location Date
Start Time End Time

Number of CSFT staff or Partner Organisers
Number of Volunteers
Number of attendees
Number of wildflowers planted
Number taught about the plight of the Bumblebees
Number taught how to plant wildflowers

General feeling as to how event went *(note factors that might affect turn out and enjoyment eg weather, traffic, footy game etc)*
.....
.....
.....
.....

Notes of any verbal responses from participants
.....
.....
.....
.....

Number of happy forms returned

Photos – please tick. *(follow up images from same perspective, particularly a, e and f).*

- a) site before planting
- b) people being instructed in how to plant
- c) people planting
- d) people (eg parents) watching the (children) planting (smiling fondly)
- e) site immediately after planting
- f) site in full bloom

Appendix 2: Save the WeeBees Event 'Happy' Form



Evaluation Form as part of The Central Scotland Forest's Save the Wee Bees Campaign



Event location Date

1. How did you find out about today's event?

2. Before you heard about today's event ...

- a) where you aware that Bumblebees are endangered? Yes No Maybe
b) did you know about the plants and flowers that Bumblebees need? Yes No Maybe
c) did you know where and how to plant wildflowers? Yes No Maybe

3. After attending this event ...

- a) do you know about the plants and flowers that Bumblebees need? Yes No Maybe
b) did you know where and how to plant wildflowers? Yes No Maybe

4. How would you rate your visit to this event today?

Table with 5 columns: Terrible, Poor, Neither good nor bad, Good, Fantastic

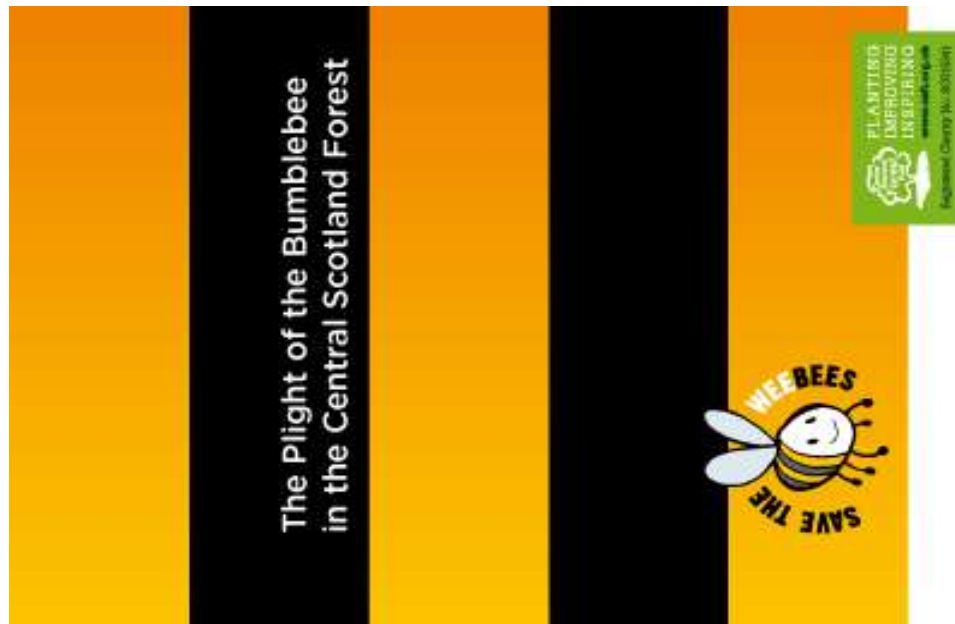
5. What about today's event did you enjoy the most?

6. What if anything could have been changed, to make your experience better?

7. Your post code

Thanks very much for completing this form, please return to a member of the event staff.

Appendix 3: The Bumblebee Guide



The **Central Scotland Forest Trust** is an environmental regeneration charity working with partners to create the **Central Scotland Forest** by woodland planting, access and recreation works, community projects and landscape improvements. It enhances the lives of the 750,000 people living, working and playing there by providing a greener, healthier and more versatile environment.

The **Central Scotland Forest** is a mosaic of woodlands spread across 1,600km² bounded by Edinburgh, Glasgow, Falkirk and Lanark. Its creation is dramatically improving the environment and landscape of an historically degraded part of Scotland.

We're Planting, Improving, Inspiring

To date:-

- 16,500,000 trees planted
- 6,600 hectares of woodland created
- 400 kilometers of pathways created
- 50 kilometers of hedgerows created or restored
- 1,100 hectares of derelict and landfill sites treated
- 300 kilometers of road corridors improved
- 2,100 community events took place
- 1,000s of volunteers helped out

To find out more visit www.csft.org.uk

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Buzzed off:

What's happening to our bees?

Bumblebees are disappearing - rapidly. Across Scotland, the UK and the world, species are dying out and numbers plummeting.

With only 25 species remaining in the UK, the decline is dramatic. The UK now has half the species of just 60 years ago. We've recently lost at least three species to extinction, and - with another seven now on the UK Priority Species list - more may follow in the near future.

What's causing this?

It is thought that a wide range of causes are combining to devastating effect.

- Loss of habitat
- Climate change
- Pesticides

What can we do?

In order to conserve our remaining bumblebee populations, and, if possible, restore them to something like their past abundance, we must provide them with the habitats they need to flourish. This cannot be achieved with existing nature reserves alone. Bumblebee nests are large, containing up to 400 workers, each of which travels more than 1 km from the colony in search of suitable flowers. Each nest needs a large area of suitable flower-rich habitat, meaning that to support a healthy population which is viable in the long term, large areas of land must be managed sympathetically.

UK nature reserves are simply too small. The only way to provide sufficient areas of habitat for bumblebees is if the wider farmed countryside and the vast areas covered by suburban gardens are managed in a suitable way. To do this we need to:

- Encourage farmers to adopt appropriate **agri-environmental** schemes. These actually benefit farmers by improving crop yields at the same time as enriching the countryside.
- Support the **replanting of hedgerows** and the recreation of **hay meadows** and **flower-rich grasslands**.
- Use wildflowers and traditional cottage-garden plants in **gardens nationwide**.



What it means for you and me

Fascinating and beautiful, bumblebees deserve conserving in their own right. However, there are also pressing ecological and economic reasons to act.

Bees are regarded as a keystone species: they are the major pollinators of most of our plants and flowers. If they continue disappearing, these plants will spread less seed - potentially bringing gradual but sweeping changes to the countryside. This will lead to catastrophic knock-on effects for other wildlife that depends on these plants.

Bumblebees are also of commercial importance, being vital to the agricultural industry. It's estimated 35% of our diet depends directly on them. That's because many arable and horticultural crops rely, to varying degrees, on bumblebee pollination. Some, like oilseed rape, can set adequate seed without bumblebees (provided there are enough honeybees), but others - such as broad, field and runner beans, tomatoes, peppers, garden peas, apples, pears, plums, cherries, strawberries, brambles and raspberries - are heavily dependent on bumblebees. Without them, there will be little or no crops to harvest.

It has been estimated that bumblebees and honey bees contribute £1 billion a year to the UK economy.

The sting in the tale

If that's the sober scientific and economic analysis, there's also the headline.

Because of their essential role in the natural food chain, it's been suggested that if bees die out, the human race would only survive for approximately six more years before running out of food.

If you ever thought bumblebees were just buzzing nuisances at summer picnics, it's time to think again.



What can be done?

Many of the causes behind this crisis need concerted global effort. To varying degrees, scientists, environmentalists, farmers and others are starting to act. But there's one cause we can all do something about.

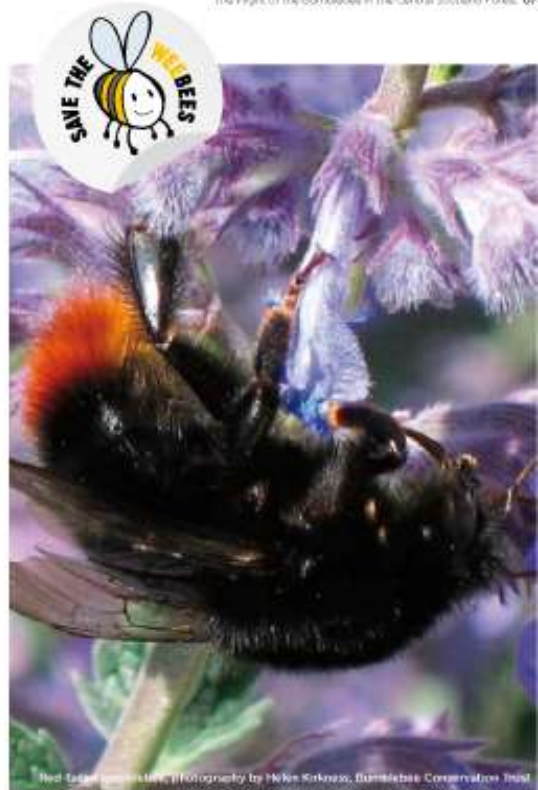
Bees feed exclusively on pollen and nectar. Yet changing farming practices and countryside management have reduced the numbers of wildflowers available to them. Replacing these is a vital contribution we can all make.

At the Central Scotland Forest Trust, we're giving away specially selected packets of wildflower seeds to schools, communities and concerned individuals across the Forest area. By planting these, and raising awareness generally, we can together make a small but significant contribution towards saving the bumblebee.

Our gardens can provide a flower-rich refuge in an impoverished landscape, and become a safe-haven for some bumblebees. Depending on where you live, and what flowers you grow, you may attract up to a dozen species. Even planting the right kinds of plants in a window box or patio tub can attract several species.

If you'd like some of these seed packets, please visit www.csft.org.uk, or call our marketing team on 01501 824786.

If you'd like to know more about our activity packs for schools – with educational wallcharts, workbooks, stickers and other resources – please call 01501 824797.



06 Central Scotland Forest Trust The Flight of the Bumblebee in the Central Scotland Forest 08

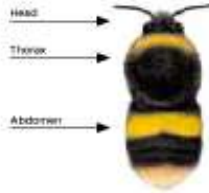
You'd better beelieve it

- 35% of our food directly depends on bee pollination.
- 7 species on the UK Priority Species list.
- UK species halved since 1950.
- 3-4 species extinct in recent years.

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Beeography:
A guide to bumblebee species

Scotland has several species of native bumblebee. Here's a short guide to the bees most likely to be found in the Central Scotland Forest area.



Common bees

These species may be found in Scottish gardens



Buff-tailed Bumblebee

Common in early spring. Both males and females have buff tails with two dirty yellow bands, one on the thorax and one on the abdomen. Workers are smaller and have a largely white tail.



Early Bumblebee

A small bee, rarely seen after August. Both genders have an orange tail with two yellow bands, one on the thorax and one on the abdomen (though some females lack the abdomen band).



Common Carder Bee

The only common all-brown bee, abundant everywhere. It is very difficult to separate from the much rarer Moss Carder Bee in Scotland.



White-tailed Bumblebee

Distinguishable from the Buff-tailed Bumblebee by its pure white tail and very lemony bands (one on the top of the thorax, the other on the abdomen).



Red-tailed Bumblebee

In this species, queens are all black with a red tail, while males often have a bright yellow band across the top of the head.



Garden Bumblebee

This long-tongued bee prefers deep flowers such as foxgloves and honeysuckle. Has a white tail and two yellow bands across the thorax, with another across the top of the abdomen.



Heath Bumblebee

A small bee usually found on mountains, moorlands and heaths, and sometimes in gardens. Similar to the Garden Bumblebee, with a white tail and two yellow bands, but smaller and shorter-tongued for shallow flowers.

Four further species are occasionally found in other parts of the UK, but not Scotland: Ruderal Bumblebee; Tree Bumblebee; Brown-banded Bumblebee, and Red-shanked Carder Bee.



Cuckoo bees...not so nice bees!

Parasitic bees: the females take over other bumblebees' nests, kill or evict the queen and use her workers to rear their offspring. As cuckoo bees don't collect pollen themselves, they don't have pollen sacks on their hind legs, but they do play an important part in population regulation.



Southern Cuckoo Bee

Large bees, with a large yellow band on the thorax but no abdomen bands (some males have a faint strip at the thorax's base). White tail with yellow side patches.



Field Cuckoo Bee

Usually two strips on the thorax; none on the abdomen. The tail is green-ish yellow, and can be extensive, covering most of the abdomen in some males.



Forest Cuckoo Bee

Has one yellow thorax band but none on the abdomen, though some males have a faint band at the thorax base. White tail, with a black tip (reddish in some males).



Barbut's Cuckoo Bee

Two yellow bands on the thorax and one on the abdomen, plus a white tail.



Gypsy Cuckoo Bee

Females have one yellow band across the thorax, males sometimes two. White-tailed, often with a yellow-ish side patch.

Rarer Bees

All these bees are rare, with some on the verge of extinction.



Broken-belted Bumblebee

A late bumblebee, concentrated where late-flowering plants grow. Males and females look similar, with two yellow bands, one on the thorax and one on the abdomen. The white tail is sometimes preceded by a thin orange line.



Blaeberry Bumblebee

A bee in decline, found in Scotland and northern England, that nests at the base of blaeberry or heather. They have an extensive bright orange tail covering almost the entire abdomen, plus two yellow bands on the thorax.



Moss Carder Bee

Currently in severe decline it is entirely ginger-brown, though the thorax is darker than the abdomen. No black hairs on the upper surface of either the thorax or abdomen.

The perfect habbeatat: Flowers for bumblebees

These flowering plants all help to create ideal environments for bees.



Birdsfoot Trefoil
Loves grassland and meadows.
Flowers June – Sept.



Bugle
Likes damp, shady woodland, hedgerow and marshy grassland.
Flowers April – Aug.



Common (or Black) Knapweed
Grows in grassland and road verges.
Flowers June – Sept.



Cornflower
Flowers June – Oct.



Field Scabious
Likes dry grassland and road verges.
Flowers July – Oct.



Foxglove
Favours slightly acidic soils.
Flowers June – Aug.

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Heather
Common to heaths and upland areas.
Flowers July – Nov.



Hedge Woundwort
Flowers July – Aug.



Kidney Vetch
Prefers poor soil in rocky areas, or coasts.
Flowers May – Oct.



Lavender
Likes sunny, dry spots.
Flowers June – Aug.



Meadow Cranesbill
Widespread in open grassland.
Flowers June – Sept.



Red and White Clover
Thrives in limey, chalky grassland and disturbed ground.
Flowers May – Nov.



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Red Campion
Abundant in woodland, grassland, hedgerows and verges.
Flowers from May/June.



Rosemary
Likes dry, sunny areas.
Flowers year round (in right conditions).



St John's Wort
Thrives in dry grassland, woodland glades and open meadows.
Flowers June – Sept.



Tufted Vetch
Flowers June – Aug.



White Campion
Abundant in woodlands and edges of arable farmland.
Flowers from May/June.



Wild Marjoram
Likes dry, sunny grassland, woodland glades and hedgerows.
Flowers July – Oct.

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CSFT recognises the kind support of The Bumblebee Conservation Trust in providing bee information and images for this guide. The Bumblebee Conservation Trust was established in May 2006 in response to growing concerns about the 'plight of the bumblebee'. The Trust's aim is to conserve our bees for future generations to enjoy through conservation and education. The Trust currently has 3,200 members and is growing fast!

For more information about the fascinating lives of bumblebees, to support the vital conservation work or join, visit www.bumblebeeconservationtrust.co.uk write to **BBCT, University of Stirling, FK9 4LA**, or phone **01786 467818**

With kind thanks also to Falkirk Council, East Dunbartonshire Council, The Tree Council and Scottish Natural Heritage.



Bee photographs kindly contributed by the following: Angela Jewell, Andrew Jones, Ben Cervik, Caron Brown, Dave Goulson, Gordon Mackie, John Watson and Nick Owen. A selection of the wildflower photographs were kindly contributed by Fiona Gust and Giles Leake of Scotch Seeds and Emile Wedderburn of CSFT.

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