

Help bees by growing good nectar plants like these in your garden ...

Trees & shrubs

apples *Malus*
cherries, plums *Prunus*
currant bushes (inc. flowering currant *Ribes sanguineum*)
Buddleia globosa
rock roses *Cistus*
heathers *Erica*
germanders *Teucrium*
veronicas *Hebe*



Flowers for the border

sea hollies *Eryngium*
bugle *Ajuga reptans*
bellflowers *Campanula*
lamb's tongue *Stachys byzantina* syn. *lanata*
scabious *Knautia arvensis*
sweet peas *Lathyrus*
sages *Salvia*
globe thistle *Echinops*
snapdragon *Antirrhinum*



In the wild garden

deadnettles *Lamium*
black horehound *Ballota nigra*
purple loosestrife *Lythrum salicaria*
woundworts & betony *Stachys*
dandelions, hawkweeds & hawksbeards
figworts and toadflaxes



Help us to find out more ...

We need to find out more about which bumblebees are found in gardens and which flowers they visit, as well as how much they might be declining. Some useful questions include:

When did you see your first bumblebee this year?

First and last dates each year for each kind of bumblebee provide useful information and help track climate changes.

What flowers do your bumblebees visit?

Help survey bumblebees in your garden and local park.

We need to know more about what flowers bumblebees visit. We need to know more about the distribution of each species, and whether they are declining. We need to know as much as possible about where they nest, how far they travel to collect pollen and which plants they collect pollen from.

Use the key inside to work out what species of bumblebee you are looking at, but be aware that workers can be variable. Males and cuckoo bumblebees also are difficult to identify. For those that do not fit the key, consult one of the books listed below. If you think you have a rare species, contact Peter Harvey at the email address below.

How to record information

Any record should include information of what, where and when, as well as who has observed and provided the information. Where can be a place name, including a postcode or Ordnance Survey grid reference. You can provide information to the contacts below or use the Essex Field Club website at www.essexfieldclub.org.uk.

Books to read

Bumblebees. Naturalists' Handbooks No. 6 by Oliver E. Prys-Jones & Sarah A. Corbet. 1987. Cambridge University Press.

The Bumblebees of Essex by Ted Benton. Lopinga Books Saffron Walden, 2000.

Contacts

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Havering Wildlife Partnership, c/o 8 Frank's Cottages, Upminster, Essex RM14 3NU email tonygunton@btconnect.com

Web sites: www.essexbiodiversity.org.uk
www.essexfieldclub.org.uk
www.havering.gov.uk



Photos and text by Peter Harvey and Tony Gunton



Because they pollinate plants, bees play a very important role in our gardens and in the countryside. Without them plants would have fewer flowers and set less fruit and as a result many other wild creatures – insects, birds and mammals – would suffer as well. The bad news for them and for us is that many species of bee are in serious decline.

Gardens can offer good habitat for insects. Most adult insects depend on flowers for nectar, but bees collect pollen to feed their young as well, and in doing so fertilise the flowers. Most people think of honeybees here, but these are actually rather poor pollinators compared with bumblebees and solitary bees.

A tiny black bee called *Chelostoma campanularum* collects its pollen from garden harebells and the Tawny mining bee *Andrena fulva* is an important pollinator of fruit trees in spring. If you want a good fruit crop, hope this bee visits and, even better, nests in your garden! The female has orange-brown hairs over its body and black hairs on the face, legs and sides. This bee is still widespread, but almost certainly less common than in the past.



What do bees need?



As well as nectar and pollen for food, bees also need places for nesting and hibernating:

- Try not to be too tidy: leave some dead wood, leaf litter or dead stems in undisturbed corners of your garden.
- Earth banks, fences and walls with old mortar in the sun are important nesting habitat for bees. Various insects and spiders will also use them to warm up early in the year and in the early morning.
- You can easily make artificial homes for bees by drilling holes 8–10mm across into 15cm lengths of wood (see right). Strap several together with wire or string and hang them up in a sheltered south-facing spot, such as under a shrub or the eaves of a shed. You will be able to see the nests and can clean them out the following spring or early summer after the young have emerged.

Choosing the best plants

Double flowers are of no use to insects, since they do not provide nectar. Even plants with single flowers may be of limited use if they are not native to Britain. *Buddleia*, the well known “Butterfly bush”, actually suits only a few insects and many other flowers are more valuable. These include plants in the pea family, dead-nettles, mints and scented herbs, the figwort family, and the daisy family. In spring and early summer fruit trees provide an important resource – indeed the crop will depend on solitary bees and bumblebees visiting and pollinating the flowers.



If you can bear to leave a few ‘weeds’ to grow and flower in the garden, then you can do even better. Red dead-nettle, black horehound, dandelions and hawkweeds can bring in some real rarities. If you live within range of the East Thames Corridor you may get a few rarities in your garden, some occasionally but also regular visitors. The Brown-banded carder bee *Bombus humilis* (see left) will forage on runner bean flowers, and the nationally scarce mining bees *Andrena fulvago* and the black *Andrena spectabilis* (top left) may be regular visitors foraging on *Crepis* and *Hebe* flowers respectively.

Bumblebees: more abundant in gardens

Only six bumblebees remain widespread in Britain, and these are often more abundant in gardens than in the modern farmed countryside. Even common bumblebees tend to collect pollen from a rather restricted range of plants, and you can help them by providing the right kind of flowers. As well as fruit trees such as apples, cherries, plums and currants in spring and early summer, any flowers in the pea and labiate families are good. Some useful plants to grow are listed overleaf.

A key to garden bumblebees

1 Look at the hind legs

| | |
|---|---|
| 1a Outer surface of hind tibia (‘thighs’) with a smooth shiny pollen collecting area or covered by pollen loads | females and worker bumblebees: go to 2 |
| 1b Tibia of hind legs without smooth shiny area or much reduced | male or cuckoo bumblebees: consult an expert or a good book |
| 1c Whole bee covered in black hairs without any areas of coloured hairs on thorax or abdomen | female Spring flower bee <i>Anthophora plumipes</i> |

2 Look at the thorax

| | |
|---|--|
| 2a Thorax all black, without colour bands. Tail red  | <i>Bombus lapidarius</i> Red-tailed bumblebee |
| 2b Thorax all yellowish brown or ginger without bands  | go to 3 |
| 2c Yellow or whitish band at front and rear of thorax (the rear band may be reduced or faint)  | go to 4 |
| 2d Yellow or whitish band at front of thorax only  | go to 4c |

3 Look at the abdomen

| | |
|---|--|
| 3a Abdomen with at least some black hairs | <i>Bombus pascuorum</i> Common carder bee |
| 3b Abdomen <i>all</i> yellow-brown or ginger with <i>no black hairs</i> (check with a magnifying lens: Common carder bees can look like this!). A few black hairs on thorax above wing bases. | <i>Bombus humilis</i> or <i>Bombus muscorum</i> (both rare species that need to be seen by an expert) |

4 Look at the tail

| | |
|---|---|
| 4a Tail white | <i>Bombus hortorum</i> Garden bumblebee |
| 4b Tail orange-red | <i>Bombus pratorum</i> Early bumblebee |
| 4c Tail clear white with no signs of yellow or brown near the junction with black hairs | <i>Bombus lucorum</i> White-tailed bumblebee |
| 4d Tail buff or brownish-white | <i>Bombus terrestris</i> Buff-tailed bumblebee |

A THREATENED BUMBLEBEE

The Brown-banded carder bee *Bombus humilis* is widespread in suitable habitat along the East Thames Corridor and is found from Havering through to Southend. Nationally it has declined dramatically in the last half of this century and it is a national Biodiversity Action Plan species. This long-tongued bumblebee is usually found in unmanaged flower-rich grassland, especially where this develops on poor soil. One of its main habitats in the East Thames Corridor is the flower-rich waste ground that develops on old industrial sites or in disused sand and gravel pits. The bee will fly long distances to forage, and has been seen in gardens collecting pollen from long-tubed flowers including runner bean flowers.

