

# Who's who of London's bees

LONDON BEEKEEPERS  
ASSOCIATION



The UK has over 275 species of bees, many of which can be found in the Capital – all are important pollinators of food crops and wild plants. Bees vary greatly in shape, size and colour and can be found in a wide variety of habitats. Some London parks support up to 50 different species so you don't have to look far to discover a wide range of bees.

For more information about the London Beekeepers' Association and how you can get involved visit our website or follow us on social media

 [www.lbka.org.uk](http://www.lbka.org.uk)

 [info@lbka.org.uk](mailto:info@lbka.org.uk)

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While honey bees are currently enjoying a period of revival and increase in numbers, many of our wild bees continue to struggle to survive. In this leaflet we will cover some of the more frequently seen wild bees found in London.

UK bees are classified into six families, each containing numerous genera and individual species. They are:

- Family **Colletidae**, a cosmopolitan group of short tongued bees which nest in underground burrows. They are sometimes known as Plasterer Bees because they produce a cellophane like resin to line their nest burrows. Representatives common in London include the Ivy Mining Bee *Colletes hedera*, an ivy specialist emerging in September and Davies Mining Bee *Colletes daviesanus* which is active in mid-summer and frequents composite flowers like Ox-Eye Daisy and Achillea.



The Colletidae also includes the Hylaeus Bees known as Yellow Faced Bees because of their distinctive facial markings. One of the most widespread representatives of this genus is the Common Yellow Faced Bee *Hylaeus communis*.

- Family **Andrenidae** is the second largest family of bees in the UK with 67 species which collect pollen on their rear legs like honey and bumble bees do. A great many of London's ground nesting solitary bees belong to the Andrena family. Common examples in the city include: the ginger Tawny Mining Bee *Andrena fulva*; the Chocolate Mining Bee *Andrena scottica* which can form large nesting congregations; Ashy Mining Bee *Andrena cineria* and the Painted Mining Bee *Andrena nitida*. Andrena bees are the preferred host for a number of cuckoo bees in the Nomada genus.



- Family **Halictidae** contains the Halictus Bees also known as Furrow Bees, the Lassioglossum or Sweat Bees and the Sphecodes or Blood Bees, named because of their blood red colouration. Some of these bees show an early form of social behaviour (they are primitively Eusocial). All have short tongues and prefer simple open flower types. These very small bees are attracted to garden plants like Astrantia, Alliums, Thyme, Eryngium and Solidago. Common examples found in London include: Slender Mining Bee *Lassioglossum calceatum* and the metallic green *Lassioglossum morio*.



- Family **Melittidae** is a small and specialised family of bees restricted to chalk grassland. There are four species found in the UK. Two of these can be found at a number of sites in central London. The Clover Bee *Melitta leporina* can be found in east London on remnants of chalk grassland and on industrial wasteland where crushed concrete and rubble mimics the chalk soils their food plants rely on. The Gold Tailed Bee *Melitta haemorrhoidalis* is a specialist of bell flowers (campanulas) and can be found in the Rose Gardens of Hyde Park and suburban gardens.



- Family **Megachilidae** includes the Mason, Leafcutter, Wool Carder Bees, Stelis or Oil Collecting Bees, Chelostoma or Scissor Bees and the Coelioxys or Sharp Tailed Bees. Examples found throughout London include the highly territorial Wool Carder Bee *Anthidium manicatum*; Red Mason Bee *Osmia bicornis* and the Bellflower Scissor Bee *Chelostoma campanularum* – a tiny black bee no bigger than an ant which collects pollen exclusively from bell



and are easy to attract into your garden.

The Vipers Bugloss Mason Bee *Hoplitis adunca* is unique to London within the British Isles. It was discovered in Britain for the first time in 2016 at Greenwich Ecology Park in south east London.



Mason Bee

- Family **Apidae** is a huge cosmopolitan group of bees which includes the Honey Bee *Apis mellifera*, Bumble Bees, Cuckoo Bees, Long Horned Bees, Flower Bees, Mourning Bees and Large Carpenter Bees.



Honey Bee

The Honey Bee *Apis mellifera* is London's most numerous bee. It is of least conservation concern. These bees form huge colonies of tens of thousands of workers headed by a single queen. They are the only European bee to produce honey which can be harvested.

There are 24 species of bumble bee in the UK which vary in size and colour. Many are black and yellow with coloured tails, some are mostly black and some are mostly brown. All are covered in a dense pile of fur. Eight species are common and widespread throughout London. These bees form small colonies of up to several hundred workers and a single queen. Some bumble bees, such as the Southern Cuckoo Bee *Bombus vestalis* are nest parasites of other bumble bees, taking over an established nest and subduing the resident queen.



Southern Cuckoo Bee

Several, very rare bumble bees can also be found within Greater London, including the Moss Carder Bee *Bombus muscorum* and Shril Carder Bee *Bombus sylvarum*. Both can be found in the east of the city around the Thames Gateway.

The Flower Bees contain several solitary species which can be found in London. The most numerous and recognisable member of the group is the Hairy Footed Flower Bee *Anthophora plumipes* which is one of our first bees to emerge in Spring. They have exceptionally long tongues used to access the nectar of Pulmonaria flowers. They are unusual among UK bees demonstrating extreme difference between the sexes (sexual dimorphism) with females being all black with red hairs on their hind legs while males are buff coloured with yellow faces. These bees often nest in old walls and chimneys where they excavate burrows in decaying mortar.



Male Hairy Footed Flower Bee

Less frequently seen, but widespread in London, are their cousins the Green Eyed Flower Bee *Anthophora bimaculata* and the Fork Tailed Flower Bee *Anthophora furcata*.



Green Eyed Flower Bee

The Mourning Bee *Melecta albifrons* is a nest parasite of the Hairy Footed Flower Bee and can often be found close to their hosts' nesting aggregations.

The Nomada Bees are a group of wasp-like kleptoparasite bees which sneak their eggs into the nests of *Andrena* species. When their eggs hatch they first eat the hosts' eggs and offspring before consuming the host bees' pollen cache. Goodens Nomad *Nomada Goodeniana* is the easiest of the 34 species to identify.



Goodens Nomad

Many of the others require microscopic examination to identify them to species level.

Large Carpenter Bees include the massive bright purple Violet Carpenter Bee *Zylocopa violacea* – Europe's largest bee. Widespread and common on the continent, this species favours a warm climate and is a recent addition to the British Isles. This bee is expanding its range and, with climate change, could soon join the list of London bees.

## Insects commonly mistaken for bees

- **Hoverflies.** These are true flies with just two wings, short stubby antenna, lack jaws and have thick waistlines. Bees are easily told apart by their thin waist, long antenna, strong mandibles and two pairs of wings. Many hoverflies mimic bees as a defence mechanism that fools predators into leaving them alone. The Belted or Hornet Hoverfly is the UK's largest hoverfly and is an excellent hornet mimic.



- **Bee-flies** are true flies and kleptoparasites of solitary bees. They hover over the nest burrows of solitary bees and flick their eggs inside. The maggots then eat the host bees' eggs, offspring and food stores. They are very furry and mimic bumble bees.



- **Social wasps** include the Common Wasp *Vespula vulgaris* and European Hornet *Vespa crabo*. Wasps are greatly misunderstood insects which have an undeserved bad reputation. As well as being pollinators just like bees, wasps are also prolific predators of many insect pests and perform a vital role spreading naturally occurring yeasts throughout the environment, without which we would have no bread, beer or wine! Social wasps nest in large papier maché-like nests and are often mistaken for honey bees. Unlike honey bees the colony dies in autumn and only mated queens hibernate to repopulate the following spring.



- **Solitary wasps** include several which may be mistaken for bees. Many solitary wasps prey upon solitary bees and some of them on honey bees such as the Bee Wolf *Philanthus triangulum*. Bees and wasps are closely related with the main differences between them being diet and behaviour; bees are vegetarian whilst wasps are omnivorous and feed their offspring on other invertebrates. Bees forage while wasps hunt. Bees tend to have hairy bodies and wasps are sparsely haired or appear hairless.



- **Clearwing moths** mimic bees and wasps to avoid being eaten by birds. They have long antenna and four wings but their bodies lack the petite waist of bees.



There are many other insects important to pollination including butterflies, moths and beetles.

For more information on wild bees visit the Bees Wasps and Ants Recording Society (BWARS) [www.BWARS.com](http://www.BWARS.com) or buy the *Field Guide to the Bees of Great Britain and Ireland* by Steve Falk.

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