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1. *Bombus lucorum s.l.*
(male)
2. *Bombus pratorum*
(female)
3. *Bombus hortorum*
(female)
4. *Bombus pascuorum*
(female)

cover image:
*Bombus hortorum*
(male)



*Bombus lapidarius*
(male)

*Bombus terrestris*
(female)

## PROVIDING SUITABLE NESTING AREAS

The first step is to provide lots of the right kinds of plants. In the spring the nest-searching queens will be attracted to gardens where they can find plenty of food. If you watch a queen looking for a nest site, you will soon understand what she is looking for. When searching she flies low over the ground in a zig-zag pattern. She will stop to investigate piles of leaves, tussocks of grass or piles of dead (but not rotting) vegetation. What she is looking for is an old mouse or vole nest which will make a warm starting place.

If you keep an area of permanently taller grass along a hedge bottom there is a good chance that old vole nests will be present. Otherwise, you can provide starter nests by putting a tennis ball-size lump of dry moss and Kapok (or other natural plant fibre) at the end of holes poked into a bank; at the edge of a hedge; under flower pots (make sure the bees can find their way in!) or under pieces of metal sheeting lying on the surface of the ground in tall grass. The more starter nests you can provide, the more likely it is that they will be found and used.

Nest boxes for bumblebees are also available commercially but their success is very variable.

**Plants and seeds**

**British Wild Flower Plants**
Growers and suppliers of native plants
T/F 01603 716615 www.wildflowers.co.uk

**Emorsgate Wild Seeds**
Supplies and promotes the use of wild seeds for habitat creation and landscaping
T: 01553 829028 www.wildseed.co.uk

**Scotia Seeds**
Producers of Scottish origin native wildflower seed for wildlife gardening and habitat creation and restoration projects of all sizes.
T: 01356 626425 www.scotiaseeds.co.uk

**www.nativetreeshop.com**

**Societies and organisations:**

**Bees Wasps and Ants Recording Society.**
Membership Secretary, David Baldock, Nightingales, Milford, Surrey GU8 5BN.
www.bwars.com.

**Bumblebee Conservation Trust**
University of Stirling, FK9 4LA
email: enquiries@bumblebeeconservation.org
web: www.bumblebeeconservation.org

**IBRA**
The International Bee Research Association (IBRA) promotes the value of bees by providing information on bee science and beekeeping.
www.ibra.org.uk

**Woodland Trust**
For advice on native tree planting and woodland creation
www.woodlandtrust.org.uk/planting

**Bumblebee Identification**
*Field guide to the Bumblebees of Great Britain and Ireland*, Edwards, M., Jenner, M.
ISBN 978-0954971311. www.ocelli.co.uk

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**About Hymettus**
Hymettus is a non-profit making charitable organisation. It is the leading source of advice regarding the conservation of bees, wasps and ants (aculeates) in the United Kingdom and Ireland.

The recognition of Hymettus as the UK's premier authority on aculeate conservation is based on the high quality of its research and its efficient dissemination of ecological and conservation information. Through its experience, expertise and scientific resources, Hymettus is a contributing partner on many important conservation projects involving aculeates and other insects throughout the British Isles.

Hymettus

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# Help save the Bumblebee...
## get more buzz from your garden

Over the past seventy years, many kinds of bumblebees have become increasingly scarce; and two species have become extinct. Those species which have remained commonplace have been able to use gardens to provide part of their habitat.

However, we cannot afford to leave the continued existence of these attractive and harmless insects to chance. By growing suitable plants and providing a haven for bumblebees in our gardens we can help safeguard future populations.

Bumblebees are not aggressive and do not sting unless they feel threatened, such as by being handled roughly or accidentally caught underfoot or in clothing. When first accosted they are more likely to roll over on their backs and wave their legs at you. Unlike social wasps and honey bees who have a thousand or more workers, a bumblebee colony only has one or two hundred. There simply aren't enough spare workers to waste resources attacking potential threats; they will leave humans alone. The nests only last for one year and will not be used again.

## MAKE YOURS A BETTER GARDEN FOR BUMBLEBEES

- These attractive, harmless and friendly insects are a source of interest and enjoyment – especially for children.
- They are vital for the pollination of soft fruits, beans and flowers; and are able to pollinate at lower temperatures than other insects.
- The presence of bumblebees, and the sound of them working, brings gardens to life.

## GARDENS ARE AN ESSENTIAL HABITAT FOR SOME BUMBLEBEE SPECIES

**They provide:**

- pollen to feed bumblebee young
- nectar to feed the adult bumblebees
- places for bumblebees to nest
- a vital replacement for lost habitat

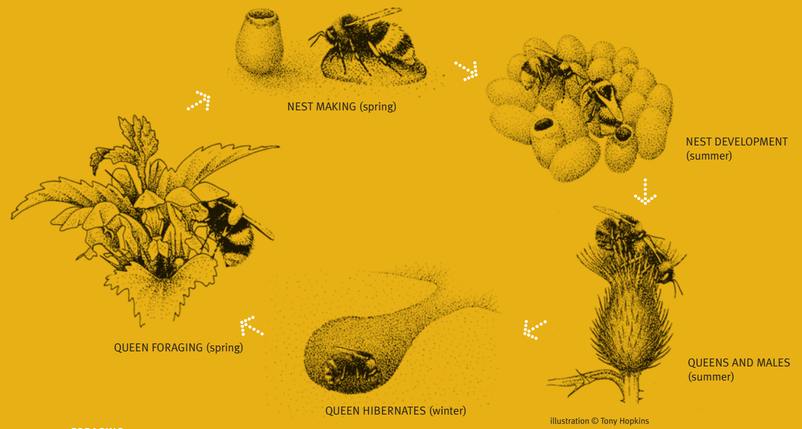


Illustration © Tony Hopkins

**FORAGING**
The queen emerges in the spring, feeds and then gathers pollen and nectar

**NEST MAKING**
The queen finds a suitable cavity and begins to make a nest of her own. She stores nectar in a nectar pot to provide food for herself during bad weather and builds a pollen larder to feed her brood.

**NEST DEVELOPMENT**
The brood become workers and gather pollen and nectar to feed the later brood.

**QUEENS AND MALES**
Later in the year females (queens) and males are produced in the brood. They leave the nest and mate with queens and males from other nests.

**QUEEN HIBERNATES**
The old queen, the workers and the males die in late autumn. The new queens excavate underground chambers where they hibernate.

## WHAT DO BUMBLEBEES NEED FROM THE ENVIRONMENT?

Bumblebee colonies are started anew at the beginning of each season by a single queen, who will have hibernated underground during the winter in a cool undisturbed place. The queen seeks out a suitable location for the new colony. While there may be plenty of potential nest sites - perhaps an abandoned mouse hole or shrew's nest - whether or not the colony survives the first perilous weeks will depend on the quality of the surrounding forage.

The colony needs nectar as a fuel for the adult and pollen for the developing larvae. Bumblebees will fly half a mile or more from the nest to find these, searching for new supplies when the old ones run out. A constant supply of food must always be present in the foraging area during the lifespan of the colony, between March and September.

At the end of its life, the colony produces new males and females and, after mating, the new queens hibernate. However, within the last decade some queens of Bombus terrestris are thought to establish nests in October rather than hibernating. These nests produce workers in November and further males and queens in the following February. Mahonia is probably the most important forage plant for winter active bumblebees.

*Bombus pratorum* (male)

## PROVIDING FOOD FOR BUMBLEBEES

Pollen and nectar from many different garden plants are used by bumblebees to feed themselves and their young. To provide the perfect environment for bumblebees in your garden, it is important to ensure that the flowering times of suitable plants cover the main bumblebee season from March to September. The greater the number of these plants in your garden, the better it will please bumblebees.

The following table suggests suitable garden plants and their main flowering times which will help get you started in planning a bumblebee diner! You do not need all of these – but it is a good idea to have a least two kinds of plant for each flowering period.

Many garden plants are cultivated varieties of wildflowers so why not think about creating a wildflower garden or wildflower bed? You could even plant a native tree such as Hawthorn, Cherry or Crab Apple! Wildflowers and native trees are the natural forage and food plants for bumblebees and other insects such as butterflies and hoverflies. By growing them, you can create your own nature reserve, one that can be of real educational value for children. You can find where to obtain suitable plants under the section 'Plants and seeds' at the back of this leaflet.

## PLANTS FOR ALL SEASONS

| *Flowering time* | *Plant* |
|---|---|
| **March and April** | |
|  *Bombus lapidarius* (female) | Berberis<br>Bluebell<br>Bugle<br>Flowering Currant<br>Lungwort<br>Pussy Willow<br>Rhododendron<br>Rosemary<br>Dead-nettle<br>Heathers |
| **May and June** | |
|  *Bombus pascuorum* (female) | Aquilegia<br>Campanula<br>Comfrey<br>Everlasting Pea<br>Geranium<br>Foxglove<br>Honeysuckle<br>Monkshood<br>Rhododendron<br>Stachys<br>Thyme |
| **July to September** | |
|  *Bombus lucorum s.l.* (male) | Cornflower<br>Delphinium<br>Fuchsia<br>Lavender<br>Rock-rose<br>Scabious<br>Sea Holly<br>Heathers |