

Large garden bumblebee

(*Bombus ruderatus*)



This bumblebee is Britain's biggest, and it has a long face and tongue, which allows it to feed from long tubed flowers. These bees are black in colour, with two yellow bands on the top half of the body, a single yellow band on the bottom half and a white tail. There is also totally black form. This bumblebee is very similar to the Garden bumblebee (*Bombus hortorum*).

The Large garden bumblebee has declined in numbers and due to the threats facing this species it has been added to the Biodiversity Action Plan.

Life cycle

Their annual life cycle sees queens emerge from hibernation. From June to August the workers are flying. Then in July to August the males are in flight. Finally queens hibernate from October to April.

Distribution map

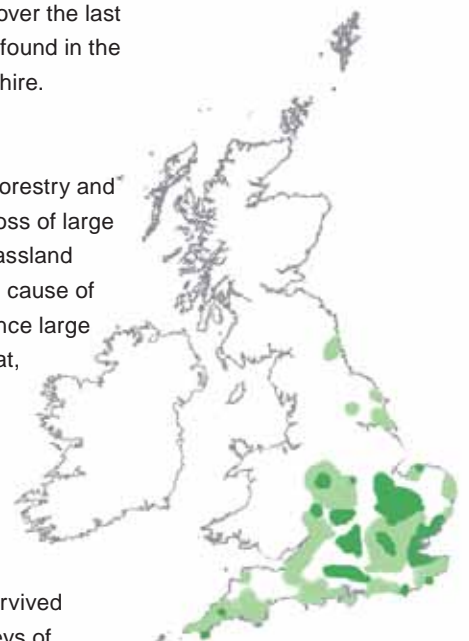
This bumblebee was once very common in southern and central England but it has been lost from over 80% of its known localities over the last 100 years. In the UK it is now mainly found in the Fens, East Midlands and Cambridgeshire.

Reasons for decline

Agricultural intensification as well as forestry and development have all resulted in the loss of large areas of flower-rich grassland, wet grassland and ditches, which has been the main cause of decline in this species. There were once large areas of flower-rich unimproved habitat, however these habitats are now small and are still being lost.

Habitat

The Large garden bumblebee is mostly associated with flower-rich meadow land and wetlands. It has survived successfully in the fens and river valleys of eastern England; however it also uses intensively farmed areas with flower-rich ditches, field margins or organic clover leys. It is vital that pollen and nectar sources are available within foraging distance of nests from April to September. It needs disused burrows of small mammals for nesting sites; these are also believed to be where the queens hibernate over winter.



Dark green = recent records (after 1980)
Light green = historic records (before 1980)



Large garden bumblebee habitat should be rich in red clover

Habitat management

- **Sow pollen and nectar flower mixes** (options HF4 and EF4/EG3): Mixes should be flower-rich and contain at least three pollen and nectar rich plants particularly Red clover favoured by this species, other species that should be present are Common toadflax, Woundworts, Teasel and Black horehound as well as thistles and knapweeds which are favoured by males and White dead nettle for queens.
- **Sow mixes in strips or blocks:** Blocks of 0.5ha, with at least one block every 20ha and stimulate late flowering by cutting half of the sown area to 20cm in June then the whole area to 10cm between 15 September and 31 October, and remove the cuttings.
- **Plant late spring blossoming shrubs** (e.g. late willow and crab apple): These are favoured by queens and in wet grassland and ditches encourage Yellow flag iris, Comfrey and Marsh woundwort.
- **Cut annually and remove cuttings:** If pollen and nectar sources are abundant cutting should preferably occur September to March and cuttings should be removed. If pollen and nectar sources are limited cutting areas of grassland during April to September should occur on a small scale and in sections or on rotation, this type of cutting will ensure that suitable plants are always available for bumblebees.
- **Stock control:** Remove stock from a site between 15 April and 1 September and stands of knapweed, burdock or thistle still flowering should be protected to provide food for queens.
- **Maintain areas of rough tussocky grass:** These will provide the moss and dead grass used as nesting material, and attract mice and voles to create nesting sites.

Environmental stewardship options

Ensure that pollen and nectar sources are present from April to September. The nectar flower mix alone as an option is unlikely to provide spring foraging for queens and so it is important that this option is combined with other non-cropped land and field corner options.

HLS options

HB14 Management of ditches of very high environmental value

HE10 Floristically enhanced grass buffer strips

HE11 Enhanced strips for target species on intensive grassland

HF1 Management of field corners

HF4 Nectar flower mixture

HF9 Unfertilised cereal headlands within arable fields

HF14 Unharvested, fertiliser-free conservation headland

HF20 Cultivated fallow plots or margins for arable plants

HJ3 Arable reversion to unfertilised grassland to prevent erosion or run-off

HK6/7/8 Maintenance/restoration/creation of species-rich, semi-natural grassland

HK15/16/17 Maintenance/restoration/creation of grassland for target features

HLS capital items

GS Native seed mix

ELS options

EB6-10 Ditch options

EE1-6/OEE1-6 Buffer strips on cultivated land/intensive grassland

EF1 Management of field corners

EF4/EG3 Nectar flower mixture on arable land or grassland areas

EF9 Unfertilised cereal headlands

EK3 Permanent grassland with very low inputs

EF2/EG2 Wild bird seed mixture on arable land or grassland areas (with the addition of good bumblebee forage plants e.g. Crimson clover, Sweet clover, Sainfoin)

References

This sheet can also be accessed on the web at www.buglife.org.uk

The Bumblebee Conservation Trust has detailed factsheets on why and how different management options can be used to create beneficial habitats for bumblebees. These are downloadable from www.bumblebeeconservation.org - just follow the links to 'Farming and land management'.

Bees, Wasps & Ants Recording Society www.bwars.com

Aculeate Information Sheets - How the habitat requirements of BAP aculeates relate to their HAP.2. Bumblebees, *Bombus* species, associated with open grasslands - Hymettus Ltd 2006.



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