

Large garden bumblebee (*Bombus ruderatus*)



This bumblebee is Britain's biggest and has a long face and tongue, which allow it to feed from long-tubed flowers. These bees are black with two yellow bands on top of the body, a single yellow band on the bottom and a white tail, however there is also a totally black form. The Large garden bumblebee has declined in numbers and due to threats it faces has been identified as a Species of Principal Importance.

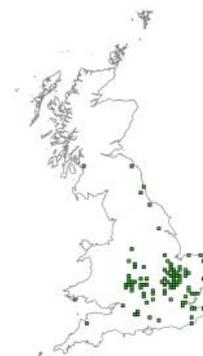
Life cycle

Their annual life cycle sees queens emerge from hibernation from April to June, with workers flying from June to August and males in flight during July and August. New queens hibernate from October ready to emerge the following spring.

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 the Large garden bumblebee. There were once large areas of unimproved flower-rich habitat, however these areas are now small and fragmented, and are still being lost.

Distribution map



Large garden bumblebee

(Post-2000 records - the information used here was sourced through the NBN Gateway. Contains OS data © Crown Copyright 2016)

The Large garden bumblebee was once very common in southern and central England but 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.

Habitat

The Large garden bumblebee is mostly associated with flower-rich meadows 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. The availability of both pollen and nectar sources within foraging distance (~500m) of nests from April to September is vital. It needs disused burrows of small mammals for nesting sites; these are also believed to be where the queens hibernate.



Large garden bumblebee habitat should be rich in Red clover *Trifolium pratense*

Habitat management

- **Sown flower mixes** should be species-rich and contain at least three pollen and nectar rich plants, particularly Red clover, which is favoured by the Large garden bumblebee. Other recommended species are Common toadflax (*Linaria vulgaris*), woundworts, teasels and Black horehound (*Ballota nigra*), as well as thistles, dead-nettles and knapweeds.
- **Sow seed mixes in strips or blocks** of 5ha with at least one block every 20ha. Cutting half of the sown area in June will stimulate late flowering.
- Planting **late spring-blossoming shrubs** such as willows and Crab apple (*Malus sylvestris*) will benefit newly-emerged queens. In ditches native species such as Yellow iris (*Iris pseudacorus*), Common comfrey (*Symphytum officinale*) and Marsh woundwort (*Stachys palustris*) should be encouraged.
- **Cutting wildflower-rich areas** should preferably be undertaken between September and March with arisings removed. Where these areas are of limited extent small sections can be cut rotationally during April to September, to promote spread of wildflowers whilst ensuring continued availability of food for wild pollinators.
- **Grazing stock** should be removed between 15 April and 1 September with any stands of knapweed, burdock or thistle still flowering protected as a

food source for new queens.

- Maintaining rough tussocky grass areas will provide moss and dead grass used as nesting material, as well as attracting small mammals, whose burrows are re-used by bumblebees.

Countryside Stewardship

- BE3 Management of hedgerows
- TE1/TE2/TE3 planting hedgerow/parkland/fruit trees
- WT1/WT2 Buffering of in-field ponds and ditches
- SW1/SW2/SW3 Buffer and grass strips
- GS1 Take small areas out of management
- AB1 Nectar flower mixture
- AB8/AB16 Flower-rich margins and plots/autumn sown bumblebird mix
- AB10 Unharvested cereal headland
- AB11 Cultivated areas for arable plants
- SW7 Arable reversion to grassland with low fertiliser input
- GS6/GS7/GS8/OT2 Management/restoration/creation of species-rich grassland
- GS2/GS5/OT1 Permanent grassland with very low inputs/organic management of permanent grassland
- GS15 Hay making supplement
- GS17 Lenient grazing supplement

The **'Wild Pollinator and Farm Wildlife Package'** has been designed to help address the declines in our wild insect pollinators. It includes both in-field options, such as flower-rich margins and plots, and non-farmed habitat options such as management of hedgerows. In combination they can provide the key life cycle requirements of nectar and pollen rich foraging areas, and shelter for breeding, nesting and over-wintering for our wild insect pollinators.

References

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

Bees, Wasps & Ants Recording Society www.bwars.com Aculeate Information Sheets

Bumblebees, *Bombus* species, associated with open grasslands - Hymettus Ltd