

Long-horned bee (*Eucera longicornis*)



The Long-horned bee is one of the UK's largest solitary bees. Males are extremely distinctive due to their long antennae. The Long-horned bee requires large areas of unimproved, legume-rich habitat. It is a Species of Principal Importance, because in the last century it declined dramatically across Britain. It is also the host for the rare Six-banded nomad bee (*Nomada sexfasciata*).

Life cycle

Adults emerge in May and forage until early July, with females obtaining pollen from legume flowers. Males also visit Bee orchid (*Ophrys apifera*) and Yellow archangel (*Lamium galeobdolon*). Female Long-horned bees dig burrows in bare or sparsely-vegetated ground, typically on a south-facing slope. Being a solitary bee, each female excavates her own nest, although Long-horned bees will nest in aggregations.

Reasons for decline

The Long-horned bee requires large areas of flowery habitat. It has been badly impacted by the 97% loss of flower-rich grassland during the 20th century, and is particularly vulnerable to overgrazing and poor management of grassland. Coastal development and

stabilisation of soft-rock cliffs have also contributed to its decline.

Distribution map



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

The bee was once widespread across southern Britain both inland and along the coast. It now survives at just a few dozen sites nationally, most of which are concentrated along the south coast, with inland colonies now very rare

Habitat

A variety of habitats are exploited including soft rock cliffs, flowery meadows, coastal grazing-marsh, quarries and woodland clearings. Known sites are characterised by a combination of suitable nesting habitat plus an abundance of key legumes such as Meadow vetchling (*Lathyrus pratensis*), Kidney vetch (*Anthyllis vulneraria*), clovers and bird's-foot trefoils.



Examples of Long-horned bee site: soft-rock cliffs on the Devon coast (left), coastal grazing-marsh with Meadow vetchling at Pevensey Levels, Sussex (middle), and an old quarry in Warwickshire (right)

Habitat management

- The **creation of legume-rich wildflower areas** could provide new foraging habitats within a couple of years. Maximise the abundance of flowering legumes such as Meadow vetchling, Kidney vetch, clovers and bird's-foot trefoils, between May and early July, preferably over a number of fields within a farm.
- **Hay-cutting and other mowing** (e.g. on sea walls) should be avoided until at least 15 July, and areas of pasture should be left ungrazed between 15 April and 15 July.
- In a species-rich grassland, **avoid applying fertilisers and herbicides** and remove arisings following any cutting.
- Nesting sites in **bare ground or sparsely vegetated areas should** be kept free of encroaching vegetation such as coarse grasses, bramble or scrub.
- Encourage an **extensive habitat mosaic** that affords plentiful foraging and nesting habitat in close proximity.
- A well-designed Farm Environment Plan could be crucial in providing stepping stones and corridors to link suitable sites.

Countryside Stewardship

- BE3 Management of hedgerows
- GS6/GS7/GS8/OT2 Management/restoration/creation of species-rich grassland

- GS2/GS5/OT1 Permanent grassland with very low inputs/organic land management of permanent grassland
- GS17 Lenient grazing supplement
- GS4/OP4 Legume and herb-rich swards and multi-species ley
- 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
- SW1/SW2/SW3 Buffer and grass strips
- AB11 Cultivated areas for arable plants
- WT1/WT2 Buffering of in-field ponds and ditches

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