

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 Section 41 Conservation Priority Species, 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. Females obtain pollen from legume flowers. Males also visit Bee orchid and Yellow archangel. A female Long-horned bee digs a burrow in bare or sparsely-vegetated ground, typically a south-facing slope. Being a solitary bee each female excavates her own nest, though females will nest in aggregations.

Distribution map

The bee was once widespread across southern Britain both inland and along the coast. It now

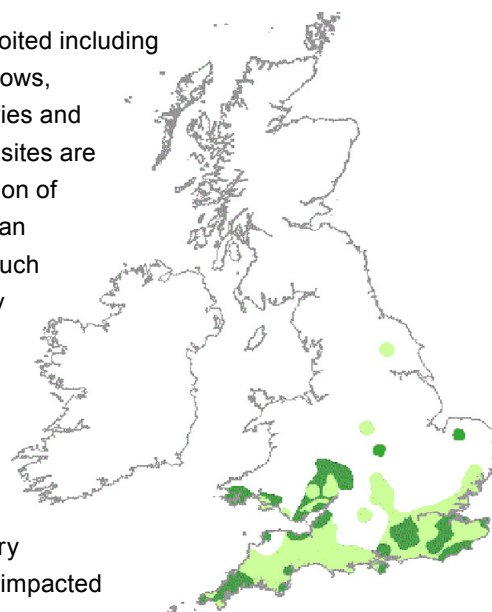
survives at just a few dozen sites nationally, most of which are concentrated along the south coast and it is now very rare inland.

Habitat

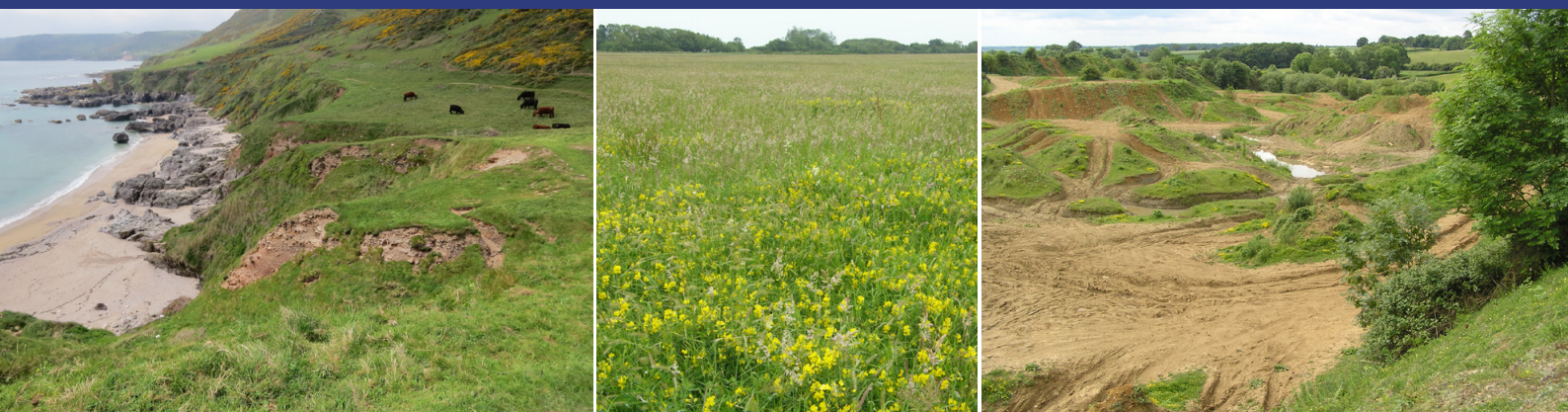
A variety of habitats are exploited including soft rock cliffs, flowery meadows, coastal grazing marsh, quarries and woodland clearings. Known sites are characterised by a combination of suitable nesting habitat plus an abundance of key legumes such as Meadow vetchling, Kidney vetch, clovers and bird's-foot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

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. It is particularly vulnerable to overgrazing and poor management of grassland. Coastal development and stabilisation of soft-rock cliffs have also contributed to its decline.



Post 1980 Dark green, pre1980 light green



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

Habitat management

- The creation of legume-rich wildflower areas could provide new foraging habitat 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 15 July, and areas of pasture should be left ungrazed between 15 April and 15 July.
- In species-rich grassland, avoid applying fertilisers and herbicides and remove arisings after 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

Environmental Stewardship 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/grassland for target features

HLS capital item

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 suitable legumes such as Meadow vetchling, Kidney vetch, clovers and bird's-foot trefoils)

The above options will encourage a much larger assemblage of bees including various mining bees that forage of legumes, plus a variety of bumblebees including several scarce species.

References and further information

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

Bees, Wasps and Ants Recording Society www.bwars.com. Species accounts for *Eucera longicornis* and *Nomada sexfasciata*.

Falk, S. J. (1991) A review of the scarce and threatened bees, wasps and ants of Great Britain. Research and Survey in Nature Conservation No. 35. Nature Conservancy Council, Peterborough.

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