

Long-horned bee

(*Eucera longicornis*)



Female Long-horned bee © Steven Falk



Male Long-horned bee © Steven Falk

The Long-horned bee (*Eucera longicornis*) 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 listed under Section 7 of the Environment (Wales) Act 2016 as a Species of Principle Importance in Wales. Previously widespread and locally common in southern Britain, it has declined substantially and is now considered to be one of Britain's most declined bees. It is also the host of the very rare Six-banded nomad bee (*Nomada sexfasciata*).

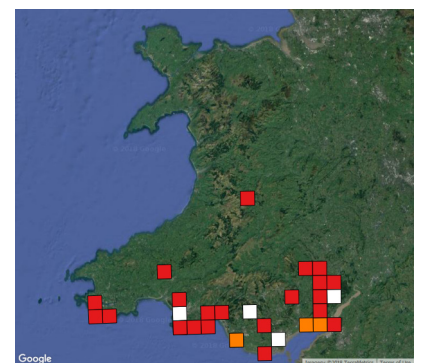
Life cycle

Adults emerge in mid-May and forage until early July, with females obtaining pollen from legumes such as clovers, Kidney Vetch (*Anthyllis vulneraria*), Vicia vetches, Meadow vetchling (*Lathyrus pratensis*) and everlasting-peas. It also visits a wide range of flowers for nectar. Males particularly like labiates such as Ground-ivy (*Glechoma hederacea*) and Bugle (*Ajuga reptans*). Female dig burrows in bare or sparsely vegetated light soils, preferring south-facing slopes or vertical cliff faces. Being a solitary bee, each female excavates her own nest, although Long-horned bees will nest in aggregations.

Distribution map

The Long-horned bee was once widespread across southern Britain, both inland and along the coast. It now survives at just a few dozen sites nationally, including coastal areas of south and west Wales, with inland colonies now rather rare.

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(Red squares show distribution between 1990 and 2017; orange squares between 1950 and 1989; white squares between 1800 and 1949. The most recent (top most) dates overlay the earlier dates (lower ones). The information used here was sourced through the NBN Atlas and Local Environmental Records Centres Wales from the following sources: Bees, Wasps and Ants Recording Society (BWARS), National Trust, Natural Resources Wales (NRW), South East Wales Biodiversity Records Centre (SEWBReC), and West Wales Biodiversity Information Centre (WWBIC). NBN Atlas occurrence download at <http://nbnatlas.org>. Accessed 01 March 2018.)

Habitat

A variety of habitats are exploited including coastal soft rock cliffs and slopes (e.g. Horton Cliffs and Rhossili Bay, Gower), coastal grasslands (e.g. Castlemartin Range, Pembrokeshire), hay meadows (e.g. Kingcoed Meadow, Raglan, Monmouthshire), coastal grazing levels (e.g. Gwent Levels), saltmarsh (e.g. Kidwelly Marsh and Banc y Lord, Carmarthenshire), riverbanks (e.g. River Monnow, Monmouth, Monmouthshire), fens (e.g. Crymlyn Bog NNR, Swansea), lowland heath (e.g. Giants Grave, Briton Ferry, Neath Port Talbot) and roadside verges (e.g. Miskin, Rhondda Cynon Taf). It is also found in the open rides of deciduous woodland and in more agricultural settings, where it presumably nests in river banks.

Known sites are characterised by a combination of suitable nesting habitat plus an abundance of key legumes such as Meadow vetchling, Kidney vetch, everlasting-peas, clovers and bird's-foot-trefoils.



Example of Long-horned bee habitat at Flimston Bay, Castlemartin, Pembrokeshire © Steven Falk.

Reasons for decline

The Long-horned bee requires large areas of flowery habitat. It has been badly impacted by the loss of dry unimproved grassland during the 20th century, and is particularly vulnerable to overgrazing and poor management of grassland. Coastal development, the loss of cliff top habitat, and stabilisation of soft-rock cliffs have also contributed to its decline.

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 on farms.
- **Hay-cutting and other mowing** (e.g. on sea walls) should be avoided until at least 15th July, and areas of pasture should be left ungrazed between 15th April and 15th 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.
- **Strategic planning** of habitat enhancement or creation at a landscape scale could be crucial in providing habitat links and stepping stones between suitable sites.

Further information

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

This bee is included in Buglife Cymru's Wales Threatened Bees report which can be downloaded from www.buglife.org.uk/wales-threatened-bee-report

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. Peterborough: Nature Conservancy Council.

Flickr: Steven Falk <https://www.flickr.com/photos/63075200@N07/sets/72157633087865547/>. Species account for *Eucera longicornis*.

Stevens, D. P., Smith, S. L. N., Blackstock, T. H., Bosanquet, S. D. S and Stevens, J. P. (2010) Grasslands of Wales: A Survey of Lowland Species-rich Grasslands, 1987-2004. Cardiff: University of Wales Press.