
The Shrill carder bee

(Bombus sylvarum)





The Shrill carder bee is a distinctive bee which can be identified by its pale grey-yellow colouring, black band of

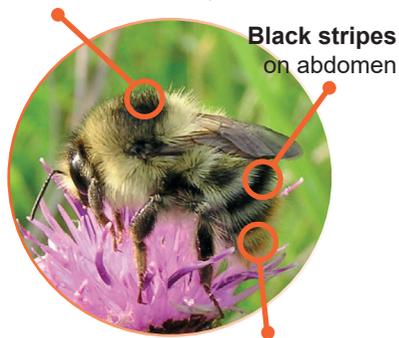
hair between the wings and reddish-orange tail. It also has a noticeably high-pitched buzz. Queens are approximately 17mm long, whereas workers and males are generally much smaller.

The distribution of Shrill carder bee has declined dramatically in the last century, making it one of the UK's rarest bumblebees. The Shrill carder bee is now only found in seven areas in southern England and Wales. These fragmented populations are found in Kent, Essex, Somerset, Wiltshire, Gwent, Glamorgan and Pembrokeshire.

It is a priority species for conservation in England and Wales. The principal causes of decline are the loss of flower-rich meadows and the intensification of farming and grazing practices.

What to look for . . .

Black band between wings

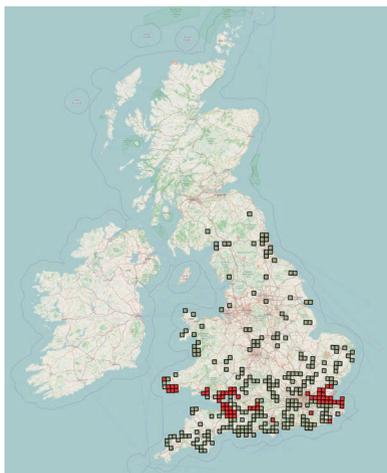


Black stripes on abdomen

A mainly straw-coloured bee, with dull **reddish-orange** tail.

Current distribution

The current distribution of the Shrill carder bee in the UK. Post 2000 is shown in red and pre-2000 is grey.



Some data courtesy of BWARS1.

Shrill carder bee lifecycle

The Shrill carder bee is a late emerging species, as queens do not come out of hibernation until May. Queens will feed on nectar and then begin to search for a suitable nest site.

Nests are usually built on the ground, or just below the surface, in thick vegetation such as tall or tussocky grassland. Shrill carder bee queens produce small colonies compared to other bumblebees, with 50 - 70 workers in a mature nest.

Workers, seen from mid June onwards, collect nectar and pollen to support the nest. Later in the cycle, the queen switches from producing workers to rearing males and daughter queens, which emerge in late August to September. After mating, daughter queens find suitable hibernation sites and will not emerge

again until May the following year. Once the new queens have been produced, the rest of the colony, including the old queen, begin to die.

Preferred food sources . . .

The Shrill carder bee is a long-tongued bumblebee and prefers plants with long tubular flowers. Favourite forage plants include white dead-nettle, hedge woundwort, black horehound and legumes such as red clover, birds-foot trefoil and meadow vetchling. Late flowering species include red bartsia, common knapweed and scabious. 'Weed' species such as ragwort and thistles can also be important forage resources.



Red clover is a favourite for the Shrill carder bee. It is vital forage resource with nutrient rich nectar and pollen which has a long flowering period.

Providing habitat

The Shrill carder bee occupies varied habitats such as the dry grasslands of Salisbury Plain and Castlemartin Ranges, coastal and brownfield sites in the Thames Gateway and wet grazing marshes of the Somerset and Gwent Levels. Research suggests that it doesn't forage as far from the nest as many other species, so it needs open, extensive flower rich habitats close to undisturbed nesting habitat.

As it is a late emerging species, it is crucial to provide forage into late September to ensure new queens are reared. Late cut meadows, field edges, hedgerow margins, sea walls and ditches can help provide this.

Did you know . . .

- Shrill carders are one of Britain's most threatened bumblebees.
- Once widespread in lowland Britain, this species has suffered a severe reduction in distribution during the 20th Century.
- One of the smallest British bumblebee species.
- It has a noticeably high pitched buzz.
- Needs extensive areas of flower-rich habitat to sustain a population.
- Nests above ground in tussocky grass and thick vegetation.
- Found in a variety of habitats including grassland, heathland, coastal and brownfield.
- One of the last species to emerge from hibernation, and one of the last species to finish nesting and go into hibernation in the autumn.

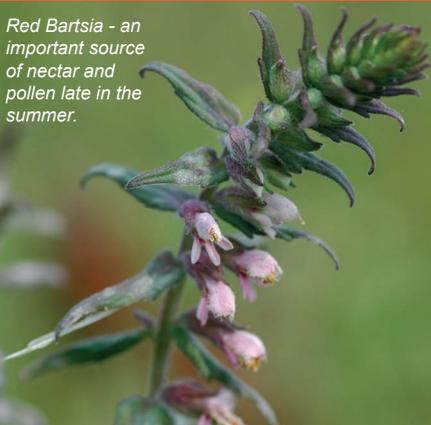
Red Clover - a favourite!



Key management suggestions

- Ensure that plentiful flower rich forage habitat is available until late September. This can be achieved through a cutting or grazing rotation.
- Cut traditionally managed hay meadows after mid-July; if possible rotate a late cut to provide forage into September.
- Leave wide uncut strips at the edge of fields to provide late forage (rotate strip each year).
- Cease summer grazing, or, adopt light rotational grazing throughout the year.
- Rotate cutting of hedges, ditches and banks - ensures some areas are cut late.
- Establish new wildflower grasslands or pollen and nectar margins.
- Leave tussocky grass and scrubby areas for nesting, undisturbed between March and October.
- Protect and manage brownfield habitats by rotational clearance of vegetation to maintain mosaic with open flowery areas.

Red Bartsia - an important source of nectar and pollen late in the summer.



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1. The Bees, Wasps and Ants Recording Society (BWARS) is the national society dedicated to studying and recording bees, wasps & ants in Britain & Ireland.

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Educational factsheet 3

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