

Red-shanked Carder Bee and Ruderal Bumblebee

Bombus ruderarius and *Bombus ruderatus*

Red-shanked Carder Bee

Bombus ruderarius



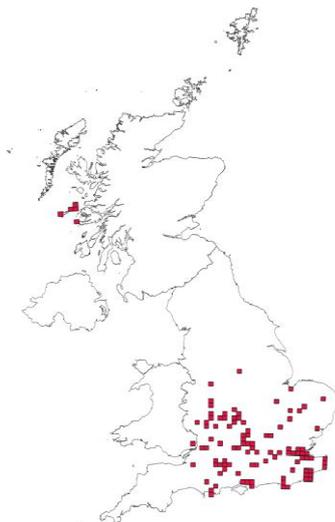
The Red-shanked Carder Bee is a scarce bumblebee species which has suffered severe declines in the UK and appears to still be declining. Predominantly black with a red tail, it is very similar in appearance to the more common and widespread Red-tailed Bumblebee. However, it is smaller, rounder and females have red hairs fringing the pollen baskets on their hind legs (hence 'red-shanked'). Unlike the females, males have two dusky straw-coloured bands on the thorax. In common with other 'carder' bee species the Red-shanked Carder Bee nests at ground-level, frequently in tall tussocky grass and sometimes in old mouse or vole nests. Colonies are small compared to other UK species, probably with less than 50 individuals in a nest. This species is strongly associated with large and open areas of unimproved grasslands.

Lifecycle

Queens emerge from hibernation in April. Once they have established a nest they produce workers which can be seen from May to August. Later in the summer the nest produces males and new queens which can be seen from June to September.

Habitat

The Red-shanked Carder Bee uses a variety of flower-rich habitats such as chalk or neutral grasslands, brownfield sites and coastal habitats. The range of forage plants used is wide and changes through the year. Particular favourites include White Dead-nettle, bramble, Black Horehound, Teasel, everlasting-peas, knapweeds, scabious species, and legumes such as Red Clover and Bird's-foot Trefoil. On chalk grasslands it has also been recorded foraging on Viper's Bugloss, melilots, Purple Milk-vetch, Ground Ivy and Kidney Vetch.



***Bombus ruderarius* distribution in Britain & Northern Ireland.**

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Distribution

Found predominantly in the south of England, but also into the Midlands and parts of south Wales. There is also a population on Coll & Tiree in the Scottish Western Isles. It has been lost from much of its former range including all of Devon and Cornwall.

GB status and rarity

Section 41 species

Survey method

Positive identification of Red-shanked Carder Bee is likely to require an experienced bumblebee recorder. It may be possible to identify this species from photographs, if the appropriate features are included (hind leg of females showing red hairs).

Reasons for decline

This species has suffered a severe decline in abundance and distribution, particularly since the 1970s/1980s. It is likely that the deterioration and fragmentation of habitat, primarily through agricultural intensification, is a key factor. The remaining populations are largely found in regions with large, well-connected areas of semi-natural grasslands.



Red-shanked Carder Bee nest

Ruderal (or Large Garden) Bumblebee

Bombus ruderatus



The Ruderal Bumblebee is one of Britain's largest bumblebee species and has a very long face and tongue. It is one of the white-tailed, three-banded bumblebees; mainly black, with yellow bands at the front and back of the thorax (top part of body), and one yellow band at the front of the abdomen (bottom half of the body). This species can also have a completely black form, i.e. with no banding.

The typical form is very similar in appearance to the common and widespread Garden Bumblebee (*Bombus hortorum*), but tends to be slightly larger, neater and darker in general appearance. It is largely found in river valleys and field margins planted with pollen & nectar mixes.

Lifecycle

Queens emerge from hibernation between April to June. Once they have established a nest they produce

workers which can be seen from June to August. Later in the summer the nest produces males and new queens which can be seen from July to October.

Habitat

The Ruderal Bumblebee is associated with flower-rich habitats, particularly areas with lots of deep-tubed flowers such as Red Clover, White Dead-nettle, Yellow Flag Iris and Marsh Woundwort. It can also be found in grasslands, brownfield sites, fens and coastal grazing marsh. In agricultural landscapes it can be found foraging on flower-rich ditches, clover leys and pollen and nectar field margins grown for agri-environment schemes. Nests, often found in burrows of small mammals, tend to be quite large with over 150 workers.

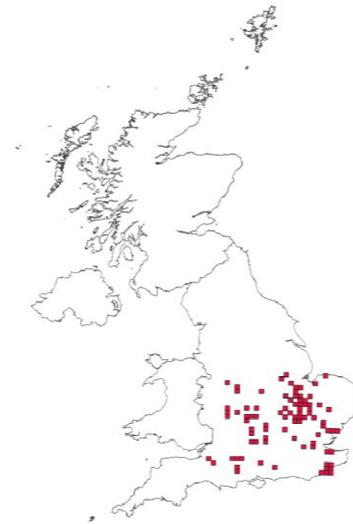
Other key forage plant species include Common Toadflax, Black Horehound, thistles, knapweeds, Red Campion and comfreys.



Wildflower-rich field margin

Distribution

Once widespread throughout southern and central England, this species has undergone severe declines in range and distribution. Now found in the south of England up to Lincolnshire, the species appears to be staging a slight recovery in the south and east of its British range. It has always been rare in Wales, with few recent records and is absent from Scotland.



Bombus ruderatus distribution in Britain & Northern Ireland.

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GB status and rarity

Section 41 species, Nationally scarce (Nb)

Survey method

This species is very similar in appearance to the common and widespread Garden Bumblebee (*Bombus hortorum*), therefore positive identification requires an experienced bumblebee recorder. Large, all-black bumblebees are likely to be this species.

Reasons for decline

The difficulty of identifying this species has made establishing its true range, and thus reasons for decline, difficult. However, the remaining populations occur where there are large quantities of deep-tubed flowers such as comfrey and the species is recolonising where this habitat has been replanted. It is likely that habitat loss has been the main driver of decline.

Habitat management for both species

Both species need large, well-connected areas of flower-rich habitat in order to thrive, with forage available right through the flight season, from March/April until September/October.

At a small scale, this can be achieved by creating or managing flower-rich patches. These should be full of flowers – small, high-value patches scattered through the landscape are more valuable than a single large medium-value area. Different patches should come into flower at different times so that there is always something in flower. Legumes – family Fabaceae – are bumblebee superfoods, in particular Kidney Vetch and Red Clover. In wetter areas, plants such as comfrey, Marsh Woundwort and Yellow Iris come into their own.

Multiple patches in relatively close proximity ensure that bees do not have to travel far to forage. Patches should ideally be connected, e.g. by hedgerows or field margins. Working at a landscape scale with neighbouring landowners will enable you to provide forage continuity and address habitat gaps by creating diversity in flowering species. Create diversity in habitat by managing areas on rotation, leaving areas uncut and by using rotational or mob grazing. Avoid use of fertilisers, pesticides and other agricultural chemicals where possible.

Scattered patches of scrub, coarser vegetation, tussocky grass, banks and hedgerows will provide important nesting and hibernation sites for overwintering queens. Manage tussocky areas on rotation, cutting patches every 3 years in winter (October-February and remove cuttings). If managing smaller sites then try to cut late (in September) and/or leave an uncut area. Alternatively cut half in mid-summer and half in September. Always remember to remove cuttings.

Hedgerows are beneficial as nesting/hibernation sites but also provide forage, especially in early spring when many trees & bushes flower such as willows, thorns & other *Prunus* species. Leave wide margins up to the hedge as the hedgerow-base flora (dead-nettles, Foxglove, campions, Honeysuckle, knapweeds etc) provide food later in the year.

Ruderal Bumblebee-specific management

As a relatively late-flying species, late cutting of meadows is better for the Ruderal Bumblebee. This species also does well on agri-environment pollen and nectar margins which are aimed largely at long-tongued bumblebee species. Flower patches should be used to encourage preferred species, particularly legumes such as Red Clover and Kidney Vetch, but also woundworts, Teasels, thistles, dead-nettles, knapweeds, Common Toadflax and Black Horehound.



Wildflower-rich meadow full of vetches and Red Clover (c) Bumblebee Conservation Trust

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