

Back from the Brink – Species summary

Red-shanked Carder Bee

BftB project: IPO4 Limestone’s Living Legacies

Project lead organisation: Butterfly Conservation

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Partner organisation for species: Bumblebee Conservation Trust

Species name – common & scientific	Red-shanked Carder Bee <i>Bombus ruderarius</i>
Photograph	 <p>© Ben Hamers / Back from the Brink</p>
Taxon group	Hymenoptera Apidae (Bees)
Conservation status	A species “of principal importance for the purpose of conserving biodiversity” under Section 41 (England) of the Natural Environment and Rural Communities Act 2006.
UK 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.
Habitat associations	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. Remaining populations are largely found in regions with large, well-connected areas of semi-natural grasslands.

BftB work carried out:	
Survey & Monitoring	<p>BftB survey work focussed on our project target sites and re-visiting historical sites for the two target bumblebee species in an effort to establish if either species was still present in the Cotswolds. Volunteers were trained to identify and survey for the two species, although being very hard to separate from more common species, surveys were often done with or by Bumblebee Conservation Trust (BBCT).</p> <p>2019 surveys: Cranham Common (project target site) Edge Common (project target site) Juniper Hill (project target site) Painswick Beacon (project target site) Rodborough Common (project target site) Rough Bank (project target site) Sheepscombe Common (project target site) St. George's Field (adjacent to project target site) Snow's Farm (project target site) Stuart Fawkes (historical record <i>B. ruderarius</i>) Swift's Hill (project target site) Daneway Banks (additional site chosen by volunteers) Greystone's Farm (additional site chosen by volunteers)</p> <p>2020 surveys: Cleeve Hill (historical record <i>B. ruderarius</i>) Stuart Fawkes (historical record <i>B. ruderarius</i>) Plus four other privately owned sites – two with historical records for <i>B. ruderarius</i> and two with historical records for <i>B. ruderatus</i>.</p> <p>2021 surveys: Cranham Common (recent record from 2019 workshop) Prestbury Hill (adjacent to Cleeve Hill historical record <i>B. ruderarius</i>) Plus three other privately owned sites – two with historical records for <i>B. ruderarius</i> and one with historical record for <i>B. ruderatus</i>.</p>
Site habitat management works	Not specific to the species, but general habitat management especially scrub clearance will have been beneficial.
Technical advice provision	<p>Advice given to landowners and land managers on managing for bumblebees and the two target species on our Managing Your Grassland for Wildlife workshops.</p> <p>A new factsheet covering both Red-shanked Carder Bee and Ruderal Bumblebee was also produced with Bumblebee Conservation Trust.</p>
Wider engagement & advocacy activities?	<ul style="list-style-type: none"> • Beginners and Intermediate Bumblebee Identification and Survey workshops run in 2018, 2019 and 2021 led by Bumblebee Conservation Trust and a local bumblebee expert. Attended by 106 people. • A separate talk was given on bumblebee ecology and identification to a local village via Zoom at the request of a new volunteer keen to make the village bumblebee friendly.

BftB results obtained:	
Recorded Distribution (in BftB focal areas)	No Red-shanked Carder Bees were found at 19 of the 20 sites that were surveyed by volunteers/BBCT in 2019, 2020 and 2021. However, it was found at one site in 2021, Prestbury Hill, a Butterfly Conservation reserve on the Cotswold escarpment north east of Cheltenham. The reserve sits adjacent to Cleeve Hill where there was a historical record for <i>B. ruderarius</i> from 1998. A single Ruderal Bumblebee was also found at Prestbury Hill on the same day.
Recorded Abundance of species populations	Only one individual found at one site in 2021.
Other results documented?	Records of the other bumblebee species found during the surveys have been compiled and sent to the Gloucestershire Centre for Environmental Records.
Species Recovery Curve progress made	Species recovery curve score moved from 1 to 5: Our surveys helped us better understand the habitat requirements of this species. It appears that our target limestone grassland sites often don't contain the right type and abundance of nectar rich wildflowers for this species. Surveys at sites with historic records also identified several sites that are no longer in good condition for bumblebees and are in need of restoration work.
Recommendations for future work:-	Recommendations from Bumblebee Conservation Trust re Prestbury Hill: <i>Keep existing management (particularly for Dukes & both Chalkhill & Small Blue) - lots of kidney & horseshoe vetch, plus other flowers available through the season (March-Sept), in a matrix of medium-height open grassland with rougher/longer areas around scrub patches (good nesting areas). Ruderarius needs a bit of thatch in the grass, and rougher areas with thorn scrub or brambles is good for nesting as well. Ruderatus will probably be nesting near the woodland edge and in the denser scrub areas, so keeping a matrix that includes these patches will be good for them.</i>