

## CARMARTHENSHIRE STATE of NATURE – BUMBLEBEES



Environment (Wales) Act 2016 – Section 7 - Biodiversity lists and duty to take steps to maintain and enhance biodiversity.




The species listed in this table have been identified by Welsh Government (WG) as part of a list of species and types of habitat found in Wales that they consider are of key significance to maintain and enhance biodiversity in this country. This list (Section 7 list) is currently under review by WG and Natural Resources Wales (as of 2024) .

Public authorities (e.g. WG, councils) must take reasonable steps to maintain and enhance the species and types of habitat included in Section 7 and encourage others to take such steps. By safeguarding these species and habitats, improving their management and raising awareness about them it is hoped that a resilient natural environment in Wales will be sustained into the future.



It is the Section 7 species that the Carmarthenshire Nature Partnership consider for priority action, but other species have been identified for local action where there are few records or where Carmarthenshire has populations where specific action can help conserve enhance the species.

**Associated habitats** refers to the relevant Section 7 Priority habitats in Wales

| Species  | Carmarthenshire overview   | Identified priority action in Carmarthenshire  |
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| <p><i>Bombus humilis</i><br/>Brown-banded Carder-bee</p>  <p>© BBCT</p>    | <ul style="list-style-type: none"> <li>• <b>Associated habitat:</b> Dune slack, open dune, dune grassland, coastal grassland, and coastal heath</li> <li>• <b>Status:</b> UK: not listed (awaiting review) IUCN: Least Concern.</li> <li>• A mostly southerly distributed species in the UK but more common locally in South Wales coastal habitats such as Pembrey Burrows and Morfa Berwig Local Nature Reserve. Most recent verified record was at Pembrey Country Park in 2023. A number of inland records also exist across the county (for example in Cwm Gwili), and it is possible that populations more widely scattered across lowland Carmarthenshire.</li> <li>• <b>Trends:</b> In decline nationally but are locally common where habitat remains.</li> <li>• <b>Threats:</b> key factors in bumblebee declines are: <ul style="list-style-type: none"> <li>• Loss of flower-rich habitats, particularly wildflower meadows and pastures.</li> <li>• Climate change</li> <li>• Pesticides</li> <li>• Diseases</li> <li>• Population isolation leading to inbreeding.</li> <li>• Competition with honeybees</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• Targeted species surveys are needed across Carmarthenshire to determine this species distribution. This species is hard to identify and so may be under-recorded in the county. Specific training in identification to volunteers/surveyors will be needed.</li> <li>• Included as target species in BBCT Connecting the Carmarthenshire Coast project started May 2023</li> <li>• Advice for managing habitats for <i>Bombus humilis</i> can be found <a href="#">here</a>.</li> </ul> |
| <p><i>Bombus ruderarius</i><br/>Red-shanked Carder-bee</p>  <p>© BBCT</p> | <ul style="list-style-type: none"> <li>• <b>Associated habitat:</b> Flower-rich Lowland grassland/heathland/coastal</li> <li>• <b>Status:</b> UK: Not listed (awaiting review) IUCN: Least concern.</li> <li>• The most recent record for this species is 2015 at Laugharne Burrows. No other records post-2010.</li> <li>• <b>Trends:</b> In decline across the UK. Only remaining at a handful of sites in south and east Wales</li> <li>• <b>Threats:</b> key factors in bumblebee declines are: <ul style="list-style-type: none"> <li>• Loss of flower-rich habitats, particularly wildflower meadows and pastures.</li> <li>• Climate change</li> <li>• Pesticides</li> <li>• Diseases</li> <li>• Population isolation leading to inbreeding.</li> <li>• Competition with honeybees</li> </ul> </li> </ul>   | <ul style="list-style-type: none"> <li>• Specialist surveys are needed to target formerly known sites and other potentially suitable habitats. This species is hard to identify and so may be under-recorded in the county. Specific training is needed in identification.</li> <li>• Advice for managing habitats for <i>Bombus ruderatus</i> can be found <a href="#">here</a> page 31</li> <li>• Included as target species in BBCT Connecting the Carmarthenshire Coast project started May 2023</li> </ul>                  |
| <p>Moss Carder-bee<br/><i>Bombus muscorum</i></p>  | <ul style="list-style-type: none"> <li>• <b>Associated habitat:</b> Flower-rich Lowland grassland and heathland; Coastal, river valleys and fens.</li> </ul> <p>A mostly northerly distributed species which shows a preference for sites not prone to drying out. Often uses moss as nesting material in flower-rich lowland grassland. Most UK records are usually in coastal areas, although some records are found further inland, typically in valley areas in Scotland where it remains more abundant.</p>   | <ul style="list-style-type: none"> <li>• Specialist surveys are needed to target formerly known sites and other potentially suitable habitats. This species is hard to identify and so may be under-recorded in the county. Specific training is needed in identification.</li> <li>• Establishing and maintaining flower rich meadow habitats and road verges</li> </ul>  |

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|---|--|--|
|  <p>© Nick Withers</p>   | <p>• <b>Status:</b> UK: Not listed (awaiting review) IUCN: Vulnerable</p> <p>3 post-2010 records in Carmarthenshire, including 2 coastal records (Laugharne Burrows and Pembrey) and 1 record in Cwm Cathan.</p> <p>• <b>Trends:</b> Formerly widespread but suffering heavy declines and range retreat northwards across the UK.</p> <p>• <b>Threats:</b> key factors in bumblebee declines are:</p> <ul style="list-style-type: none"> <li>• Loss of flower-rich habitats, particularly wildflower meadows and pastures.</li> <li>• Climate change</li> <li>• Pesticides</li> <li>• Diseases</li> <li>• Population isolation leading to inbreeding.</li> <li>• Competition with honeybees</li> </ul>   | <p>across the landscape.</p> <ul style="list-style-type: none"> <li>• Included as target species in BBCT Connecting the Carmarthenshire Coast project started May 2023</li> </ul>  |
| <p><b>Ruderal Bumble bee</b><br/><i>Bombus ruderatus</i></p>  <p>© Lawrence Harris</p> | <p>• <b>Associated habitat:</b> Flower-rich Lowland grassland and heathland.</p> <p>This species is highly like the common Garden bumblebee (<i>Bombus hortorum</i>) requires open areas of flower rich habitat – for example wildflower meadows. often associated in England with “Ruderal” habitat such as herbal lays.</p> <p>• <b>Status:</b> UK: Notable B status (Falk 1991) (awaiting review) IUCN: Least concern.</p> <p>• <b>Trends:</b> Rediscovered at two locations in Carmarthenshire in June 2022 near Brechfa and Rhandirmwyn. Previous recent record was in 1973. Has suffered extensive declines UK wide and was thought to have vanished from Wales before the 2022 rediscovery. Some populations in Kent and Cambridgeshire remain.</p> <p>This species has shown some signs of recovery in SE England after intense targeted conservation action.</p> <p>• <b>Threats:</b> key factors in bumblebee declines are:</p> <ul style="list-style-type: none"> <li>• Loss of flower-rich habitats, particularly wildflower meadows and pastures.</li> <li>• Climate change</li> <li>• Pesticides</li> <li>• Diseases</li> <li>• Population isolation leading to inbreeding.</li> <li>• Competition with honeybees</li> </ul> | <ul style="list-style-type: none"> <li>• Specialist surveys are needed to target formerly known sites and other potentially suitable habitats. This species is hard to identify and so may be under-recorded in the county. Specific training is needed in identification.</li> <li>• Establishing and maintaining flower rich meadow habitats and road verges across the landscape.</li> <li>• Develop floristically rich corridors to ensure populations can connect.</li> <li>• Included as target species in BBCT Connecting the Carmarthenshire Coast project started May 2023</li> </ul> |
| <p><b>Other ‘Locally Important Species’ considered a priority for conservation in Carmarthenshire</b></p>   |  |  |
| <p><i>Bombus monticola</i><br/><b>Bilberry bumblebee</b></p>  <p>© BBCT</p>            | <p>• <b>Associated habitat:</b> Upland, Heathland.</p> <p>Typically found in upland mountain/heath areas over 300m, preferring areas with stands of bilberry and heather.</p> <p>Status: UK: Not listed (awaiting review) IUCN: Least concern</p> <p><b>Trends:</b> Most recent record in 2023 in Mynydd Llanllwni. Relatively scarce across the UK, with populations restricted to upland habitat threatened due to climate change and agricultural intensification.</p> <p>This bumblebee has been shown to have lower heat tolerance than species that inhabit lower altitudes. In the past it was widespread in north and western Britain, but its population has declined. The main causes of this decline are thought to be related to habitat loss and degradation, both of which reduce or eliminate the flowering plants it relies on (Natural England publications; Mountain (Bilberry) Bumblebee, 2016).</p> <p>• <b>Threats:</b> key factors in bumblebee declines are:</p> <ul style="list-style-type: none"> <li>• Loss of flower-rich habitats, particularly wildflower meadows and pastures.</li> </ul>  | <ul style="list-style-type: none"> <li>• Specialist surveys are needed to target formerly known sites and other potentially suitable habitats.</li> <li>• Prevent further degradation of upland habitat, by e.g. by reducing burning.</li> </ul>   |



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|---|---|---|
|   | <ul style="list-style-type: none"> <li>• Climate change</li> <li>• Pesticides</li> <li>• Diseases</li> <li>• Population isolation leading to inbreeding.</li> <li>• Competition with honeybees</li> </ul>   |   |
| <p><b>Broken-belted bumblebee.</b><br/><i>Bombus soroeensis</i></p>  <p>© BBCT</p> | <ul style="list-style-type: none"> <li>• <b>Associated habitat:</b> Lowland grassland and heathland; Coastal; Upland</li> </ul> <p>Associated with late flowering species such as Devil’s bit Scabious and knapweed. Is more common in northern England and Scotland.</p> <ul style="list-style-type: none"> <li>• <b>Status:</b> UK Not listed (awaiting review) IUCN: Least concern.</li> <li>• <b>Trends:</b> Previously no post-2010 records in Carmarthenshire but recorded in 2022 on a site near Brechfa. This species has been lost or in decline in many sites across Wales and southern England.</li> <li>• <b>Threats:</b> key factors in bumblebee declines are: <ul style="list-style-type: none"> <li>• Loss of flower-rich habitats, particularly wildflower meadows and pastures.</li> <li>• Climate change</li> <li>• Pesticides</li> <li>• Diseases</li> <li>• Population isolation leading to inbreeding.</li> <li>• Competition with honeybees</li> </ul> </li> </ul>   | <ul style="list-style-type: none"> <li>• Specialist surveys are needed to target formerly known sites and other potentially suitable habitats. This species is hard to identify and so may be under-recorded in the county. Specific training is needed in identification.</li> <li>• Included as target species in BBCT Connecting the Carmarthenshire Coast project started May 2023</li> </ul> |
| <p><b>S7 species not recorded in Carmarthenshire but may well be found here with survey effort</b></p>  |   |   |
| <p><b>Shrill Carder-bee</b><br/><i>Bombus sylvarum</i></p>                       | <ul style="list-style-type: none"> <li>• <b>Associated habitat:</b> Lowland grassland and Heathland; Coastal, Reens.</li> </ul> <p>Traditionally a southerly distributed species, a “doorstep forager” with affinity for Fabaceae plants such as clover.</p> <ul style="list-style-type: none"> <li>• <b>Status:</b> UK: Notable B (Falk 1991) (awaiting review) IUCN: Least Concern</li> <li>• <b>Trends:</b> In rapid decline across all the UK. Now limited to five meta-populations, with 3 in South Wales (Castlemartin Range, Gwent levels and Kenfig NNR.) Isolation of populations is now leading to inbreeding and acceleration of decline. No post-2010 records in Carmarthenshire. One recent record on Pembrokeshire coast close to the Carmarthenshire County border.</li> <li>• <b>Threats:</b> key factors in bumblebee declines are: <ul style="list-style-type: none"> <li>• Loss of flower-rich habitats, particularly wildflower meadows and pastures.</li> <li>• Climate change</li> <li>• Pesticides</li> <li>• Diseases</li> <li>• Population isolation leading to inbreeding.</li> <li>• Competition with honeybees</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• Specialist survey in area of coast nearest to Pembrokeshire to confirm whether any bees are present and consider habitat suitability.</li> <li>• Included as target species in BBCT Connecting the Carmarthenshire Coast project started May 2023</li> </ul>   |