




## CARMARTHENSHIRE NATURE RECOVERY PLAN – OTHER INVERTEBRATES




### 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 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 (S7 list) is currently under review by WG and Natural Resources Wales.



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.

Most of the species here have not been recorded in Carmarthenshire for some time but included as this may well be because of lack of opportunity for recorder effort.

| SPECIES  |   | HABITAT/CARMS SITES   | ISSUES/ACTION REQUIRED   |
|--|---|---|--|
| <p><b><i>Asilus crabroniformis</i></b><br/><b>Hornet robberfly</b></p> <p>© Sam Bosanquet</p>  |  <p>Length: 25 mm</p>   | <ul style="list-style-type: none"> <li>• Lowland Grassland and Heathland</li> <li>• Much declined species of unimproved cattle or horse-grazed pastures and now very rare in Carmarthenshire.</li> <li>• Last recorded in 2005 in the west of the county but may survive at a few of the small numbers unimproved pastures in the county.</li> <li>• It flies in late summer (July-early Sept)</li> </ul> | <ul style="list-style-type: none"> <li>• Apart from the loss of habitat, it has been seriously affected by the use of ivermectins (and other animal medications) to control bot fly, etc. in horses and other internal parasites in cattle. These chemicals are excreted in the dung and kill off the larvae of dung beetles on which <i>Asilus</i> larvae are predatory.</li> <li>• Specialist survey is needed to check formerly known sites and other potential new sites.</li> <li>• Potential for public participation survey</li> </ul>  |
| <p><b><i>Bembidion quadripustulatum</i></b><br/><b>Scarce Four-dot Pin-palp</b></p>  |   | <ul style="list-style-type: none"> <li>• This beetle is found on wetland margins, including bare sand, mud or chalky-clay margins, well-vegetated fen margins, and bare silt lagoon margins.</li> <li>• Found on the banks of the Tywi near Llandeilo in 1996.</li> </ul>   | <ul style="list-style-type: none"> <li>• Specialist survey is needed to check formerly known sites and other potential new sites</li> </ul>  |
| <p><b><i>Bidessus minutissimus</i></b><br/><b>Minutest Diving Beetle</b></p> <p>© The Trustees of the Natural History Museum, London</p> |  <p>Length: 1.5 mm</p> | <ul style="list-style-type: none"> <li>• This beetle is found on the lower reaches of rivers in association with sand and fine gravel banks.</li> <li>• 1950 record at Llangadog Bridge, Afon Tywi, Llangadog.</li> </ul>   | <ul style="list-style-type: none"> <li>• Specialist survey is needed to check formerly known sites and other potential new sites</li> <li>• Best conserved by maintaining suitable habitat as part of the Afon Tywi SSSI/SAC.</li> </ul>   |
| <p><b><i>Bombus humilis</i></b><br/><b>Brown-banded Carder-<br/>bee</b></p> <p>© BBCT</p>  |                        | <ul style="list-style-type: none"> <li>• Lowland Grassland and Heathland/Coastal</li> <li>• Records in Carmarthenshire are from along the coast, e.g. Pembrey Burrows and Morfa Berwig Local Nature Reserve. Most recent was at Pembrey Country Park in 2017.</li> </ul>  | <ul style="list-style-type: none"> <li>• The key factor in our bumblebee declines has been loss of flower-rich habitats, particularly wildflower meadows and pastures. There are a number of other issues which are affecting bumblebees (e.g. pesticides, disease, viruses, inbreeding, etc.) which compound the problem.</li> <li>• Advice for managing habitats for <i>Bombus humilis</i> can be found at: <a href="https://www.buglife.org.uk/sites/default/files/Wales%20Threatened%20Bee%20report_FINAL.pdf">https://www.buglife.org.uk/sites/default/files/Wales%20Threatened%20Bee%20report_FINAL.pdf</a> – page 25</li> <li>• Specialist survey is needed to check formerly known sites and other potential new sites.</li> </ul> |

| SPECIES  |  | HABITAT/CARMS SITES  | ISSUES/ACTION REQUIRED  |
|--|--|--|---|
| <p><b><i>Bombus ruderarius</i></b><br/><b>Red-shanked Carder-bee</b></p> <p>© BCT</p>  |                           | <ul style="list-style-type: none"> <li>• Generally associated with large areas of unimproved grassland.</li> <li>• The most recent record for this species is 2015 at Laugharne Burrows.</li> </ul>  | <ul style="list-style-type: none"> <li>• The key factor in our bumblebee declines has been loss of flower-rich habitats, particularly wildflower meadows and pastures. There are a number of other issues which are affecting bumblebees (e.g. pesticides, disease, viruses, inbreeding, etc.) which compound the problem.</li> <li>• Advice for managing habitats for <i>Bombus humilis</i> can be found at: <a href="https://www.buglife.org.uk/sites/default/files/Wales%20Threatened%20Bee%20report_FINAL.pdf">https://www.buglife.org.uk/sites/default/files/Wales%20Threatened%20Bee%20report_FINAL.pdf</a> – page 31</li> <li>• Specialist survey is needed to check formerly known sites and other potential new sites</li> </ul> |
| <p><b>Ruby-tailed wasp</b><br/><b><i>Chrysis fulgida</i></b></p>   |  | <ul style="list-style-type: none"> <li>• This was recorded for the first time in Wales from Pembrey bombing range in 2005 by Liverpool Museum (during a CCW-funded survey of Welsh dune aculeates). It was recorded again in Pembrey Forest in 2008, 2012, 2013, 2015 and 2017. There's also a single record from Whiteford Burrows, on Gower, in 2007. It is a qualifying feature of Pembrey Coast SSSI and is an important feature of the forest.</li> </ul> |   |
| <p><b><i>Cylindera germanica</i></b><br/><b>Cliff tiger beetle</b></p> <p>© Roger Key</p>  |  <p>Length: 8–11 mm</p> | <ul style="list-style-type: none"> <li>• The species depends on slumping to expose new areas of bare cliff/soil and little of that habitat is found in Carmarthenshire.</li> <li>• There is one record from Craig Du–Wharley Point cliffs west of Llansteffan from 1954</li> </ul>   | <ul style="list-style-type: none"> <li>• Specialist survey is needed to check formerly known sites and other potential new sites</li> </ul>   |
| <p><b><i>Dipoena inornata</i></b><br/><b>(<i>Phycosoma inornatum</i>)</b><br/><b>Silky Gallows-spider</b></p>                        |  | <ul style="list-style-type: none"> <li>• Coastal – a species of dry grassland, shingle and coast and, like most spiders under-recorded and its true status is unknown.</li> <li>• There is a 1991 record from the Carmarthenshire coast at Dolwen Point.</li> </ul>  | <ul style="list-style-type: none"> <li>• Specialist survey is needed to check formerly known sites and other potential new sites</li> </ul>   |
| <p><b><i>Hydroporus rufifrons</i></b><br/><b>Oxbow Diving Beetle</b></p> <p>© The Trustees of the Natural History Museum, London</p> |  <p>Length: 4–5 mm</p>  | <ul style="list-style-type: none"> <li>• Wetlands/ Freshwater – shallow and temporary waters in old oxbow systems, unimproved pastures, marshes fens and dune systems.</li> <li>• 1959 record from castle moat, Kidwelly. The site was checked in 1988 and none were found.</li> <li>• A survey in 2012 found it on the Afon Teifi at Dolau-gwyrdon-isaf and Morr Wood (High Mead) – both in Ceredigion close to Carmarthenshire.</li> </ul>                   | <ul style="list-style-type: none"> <li>• Adult only active in the autumn and spring so may be overlooked in surveys.</li> <li>• Populations are highly vulnerable to drainage and infilling of pools and nutrient enrichment from agricultural runoff.</li> <li>• Specialist survey is needed to check formerly known sites and other potential new sites</li> </ul>  |
| <p><b><i>Lipsothrix nervosa</i></b><br/><b>Southern Yellow Splinter</b></p>  |  | <ul style="list-style-type: none"> <li>• This crane fly is found in wetlands/woodlands – wet rotting twigs and branches in seepages in deciduous woodlands. Thought to need continuous shade and constant supply of rotting timber.</li> <li>• The most recent record is from Dinefwr Deer Park in 1996.</li> </ul>  | <ul style="list-style-type: none"> <li>• Highly vulnerable due to its specialist habitat.</li> <li>• Specialist survey is needed to check formerly known sites and other potential new sites</li> </ul>   |

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|--|---|--|---|
| <p><i>Margaritifera margaritifera</i><br/>Freshwater pearl mussel</p> <p>© Pearlsinperil</p> |                            | <ul style="list-style-type: none"> <li>• Freshwater</li> <li>• Most recent records are from the River Tywi but it is now thought to be extinct.</li> <li>• Previously also recorded in the Taf.</li> </ul>   | <ul style="list-style-type: none"> <li>• Specialist survey is needed to check formerly known sites and other potential new sites</li> </ul>   |
| <p><i>Nigrobaetis niger (Baetis muticus)</i><br/>Iron Blue Mayfly</p>                        |   | <ul style="list-style-type: none"> <li>• Wetlands/ Freshwater</li> <li>• There is a record from Dinefwr Park in 2003.</li> </ul>   | <ul style="list-style-type: none"> <li>• Threats are: changes to the structure and management of marginal and riparian vegetation; low flows caused by abstraction; high levels of suspended silt; unsympathetic dredging</li> <li>• Specialist survey is needed to check formerly known sites and other potential new sites</li> </ul> |
| <p><i>Panagaeus cruxmajor</i><br/>Crucifix ground beetle</p> <p>© Roger Key</p>              |  <p>Length: 8–10 mm</p>   | <ul style="list-style-type: none"> <li>• Coastal (Carms) – recorded from dune slacks. In S and E England it used to occur locally in marsh and fen habitat.</li> <li>• It was recorded during surveys from Tywyn Burrows from 1985 to 1998. The new early-successional slack where it occurred was lost by erosion. It may still occur.</li> <li>• It has since been found at a tiny handful of other sites in Britain and in Northern Ireland; it may be associated with certain species of chrysomelid beetles (<i>Cassida</i> spp?) in wet situations. It has been recorded on north Gower (Llanrhidian Marsh) in 1915 and it may very conceivably occur at MOD Pendine, where there is a greater extent of wet fen habitat.</li> </ul> | <ul style="list-style-type: none"> <li>• Access difficulties has meant that casual recording has ceased at Tywyn Point.</li> <li>• Loss of dune slack habitat</li> <li>• Specialist survey is needed to check formerly known sites and other potential new sites.</li> </ul>  |
| <p><i>Spiriverpa lunulata</i><br/>Northern Silver-stiletto fly</p> <p>© Roger Key</p>        |  <p>Length: 10-11 mm</p> | <ul style="list-style-type: none"> <li>• Freshwater – lives on depositional stretches – associated with sandy river banks.</li> <li>• Recorded new to Carmarthenshire on the Llanwrda shingles in the late 1980s-early 1990s; here it was found on sandy areas within the shingle habitat and it is just one species within an important shingle assemblage. The site is part of the Afon Tywi SSSI/SAC and has been subject to monitoring.</li> </ul>   | <ul style="list-style-type: none"> <li>• Specialist survey is needed to check formerly known sites and other potential new sites</li> </ul>   |
| <p><i>Thinobius newberyi</i><br/>Newbery's Rove Beetle</p>                                   |   | <ul style="list-style-type: none"> <li>• Freshwater – subterranean, species living deep in stream side gravel. Has been found under stones and amongst fine grass roots on stream and river banks.</li> <li>• Has been found on the banks of the River Tywi in 1998. Probably under recorded due to its small size and elusiveness.</li> </ul>   | <ul style="list-style-type: none"> <li>• Its habitat is at risk from river management both directly (sand and gravel removal) or by actions that affect fluvial processes.</li> <li>• Specialist survey is needed to check formerly known sites and other potential new sites</li> </ul>  |
| <p><i>Vertigo angustior</i><br/>Narrow-mouthed Whorl snail</p> <p>© John Harper</p>          |                          | <ul style="list-style-type: none"> <li>• The shell is pale yellow-brown in colour with many thin growth ridges and five whorls. The mouth of the shell has five to six teeth and is thickened. The shell is sinistral, which means the body whorls are coiled in a clockwise direction with the mouth opening on the left-hand side of the body.</li> </ul>  | <ul style="list-style-type: none"> <li>• Vulnerable to changes in hydrological conditions, reduced grazing pressure and physical disturbance.</li> <li>• Specialist survey is needed to check other potential new sites</li> </ul>  |

| SPECIES  |   | HABITAT/CARMS SITES  | ISSUES/ACTION REQUIRED   |
|--|---|--|--|
|  | <p>From left to right <i>Vertigo angustior</i> and <i>V. substriata</i></p> <p><b>NB.</b> Note that the <i>V. angustior</i> shell twists to the left (sinistral) whereas <i>V. substriata</i> are 'right-handed' (dextral).</p> <p>Both <i>angustior</i> and <i>substriata</i> are ribbed but obviously differ in their 'whorling'.</p> <p>The shells are about 1.5mm long and 1mm wide</p> | <ul style="list-style-type: none"> <li>• Largest known population in Wales found in Whiteford Burrow NNR (CCS). Additional records from Pembrey Forest, Pembrey Aerial Firing Range and grazing marsh immediately to north of forest in 2012, 2013, 2014 and 2016. Several populations but small numbers. It normally occupies the interface between sand dune and upper saltmarsh habitats as at Whitford Burrows. The site at the rear of Pembrey Forest where it has been found was, historically, an arm of the sea, i.e. the saltmarsh–sand dune interface favoured by this species.</li> <li>• Such an easily overlooked tiny snail may still be present at the latter Carmarthenshire sites.</li> </ul> |  |
| <p><i>Meloe violaceus</i><br/>Violet Oil beetle</p> <p>© Steven Falk</p>   |   | <ul style="list-style-type: none"> <li>• This species can be found in woodland edge habitats, glades and rides, upland moorlands and on flower-rich grasslands.</li> <li>• The distribution of this beetle has shrunk dramatically across the UK. They are strongly dependent upon the long-term maintenance of wildflower-rich, semi-natural grasslands.</li> <li>• Last recorded in the county in 2015.</li> </ul>   | <p><a href="https://www.buglife.org.uk/bugs-and-habitats/violet-oil-beetle">https://www.buglife.org.uk/bugs-and-habitats/violet-oil-beetle</a></p> |
| <div style="text-align: center;">  <p><b>Partneriaeth Natur</b><br/>SIR GÂR • CARMARTHENSHIRE<br/><b>Nature Partnership</b></p> </div> |   |  |  |