

CARMARTHENSHIRE STATE OF NATURE – LICHENS

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


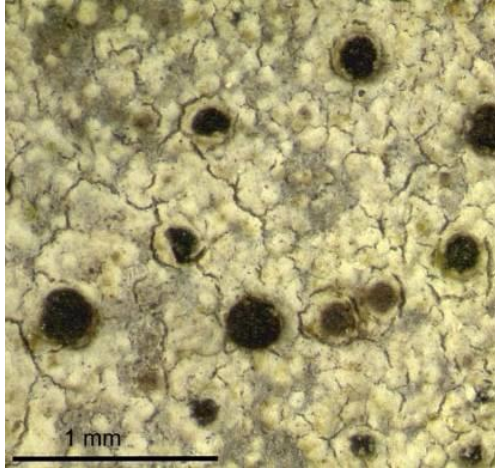

The species listed in this table have been identified by Welsh Government (WG) as part of a list of species and types of habitat found in Wales that they consider are of key significance to maintain and enhance biodiversity in this country. This list (Section 7 list) is currently under review by WG and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

All photos used with permission. Please note that some are taken at a high magnification.

Section 7 Species	Carmarthenshire overview	Identified priority action in Carmarthenshire
<p><i>Bellicidia incompta</i> (<i>Bacidia incompta</i>)</p>  <p>© Alan Orange</p>	<ul style="list-style-type: none"> • Associated habitat Trunks of old trees with 'basic', especially Elm (<i>Ulmus</i>), often in wound tracks. • Current status: Welsh Red data list 2010 – Critically Endangered • Found on two Horse Chestnut trees at Dinefwr Park in autumn 2013 and another in 2022. • Threats: Given the almost total loss of mature Elms from the Welsh landscape this species is under threat of extinction in Wales. 	<ul style="list-style-type: none"> • Identify and promote records mature elms for survey by lichenologists. • Mature elm in Cwrt Henri churchyard – investigate.
<p><i>Buellia hyperbolica</i></p>  <p>© Alan Orange</p>	<ul style="list-style-type: none"> • Associated habitat: Old parkland oaks. • Current status: Welsh Red data list 2010 – Endangered • Glan Bran Deer Park, Cynghordy - last recorded in 2004 on an ancient Oak in pasture woodland. • Dinefwr Park - last recorded in 2022. It was the largest population recorded in Britain. • Rarity: nationally rare • Threats: Sensitivity to ammonia means that this species is vulnerable to impacts from an exceedance of the Critical Level for ammonia from intensive agricultural practices. 	<ul style="list-style-type: none"> • Identify parkland sites for survey. • Resurvey Glan Bran Deer Park if possible.
<p><i>Caloplaca herbidella</i></p>  <p>© Ray Woods</p>	<ul style="list-style-type: none"> • Associated habitat: On old trees in wood pasture. • Current status: Welsh Red data list 2010 – Vulnerable • Glan Bran Deer Park, Cynghordy - last recorded 1995. • Rarity: nationally rare • Threats: Sensitivity to ammonia means that this species is vulnerable to impacts from an exceedance of the Critical Level for ammonia from intensive agricultural practices. 	<ul style="list-style-type: none"> • Identify parkland sites for survey. • Resurvey Glan Bran Deer Park if possible.
<p><i>Scytinium fragrans</i> (<i>Collema fragrans</i>)</p>	<ul style="list-style-type: none"> • Associated habitat: Nutrient-enriched bark, especially elm and sycamore, often associated with nutrient enrichment from run-off from rot holes and decay in the trunk above. • Current status: Welsh Red data list 2010 – Regionally extinct? • Dinefwr Park – Castle Woods - last recorded in Dinefwr Park in 2022 • Threats: Given the almost total loss of mature elms 	<ul style="list-style-type: none"> • Survey suitable sites – including a thorough targeted search of Castle Woods • Any tree surgery or felling should only be carried out after careful checks for <i>Collema fragrans</i>.

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 <p data-bbox="235 629 420 664">© Alan Orange</p>	<p data-bbox="699 151 1373 222">from the Welsh landscape it is uncertain whether this species survives in Wales.</p>	
<p data-bbox="199 664 483 700"><i>Graphina pauciloculata</i></p>  <p data-bbox="199 1080 346 1115">©Alan Hale</p>	<ul data-bbox="699 664 1373 1439" style="list-style-type: none"> • Associated habitat: Confined to the smooth bark, mainly on branches, of broadleaved trees in very sheltered ancient woodland and old willow carr in high rainfall areas with even temperatures all year. Sites are typically within sound of running water, very moist, consistently humid, but fairly well lit and the species does not tolerate heavy shade. It does not like alkaline substrate, occurring on leached acid bark. • Current status: Welsh Red data list 2010 – Endangered • 2014 – found in a side valley north of Abergorlech. • It is scattered through Cwm Marlais (Brechfa Forest) which is listed as pSSSI by NRW, and notifying this as SSSI should help the species (and all the Lobarion lichens there) • Rarity: nationally rare. Endemic to Britain and Ireland – occurs nowhere else in the world. • Threats: ??? 	<ul data-bbox="1373 664 1961 700" style="list-style-type: none"> • Survey suitable sites.
<p data-bbox="199 1486 472 1522"><i>Lecanora sublivescens</i></p>  <p data-bbox="199 1997 367 2033">©Ray Woods</p>	<ul data-bbox="699 1486 1373 2404" style="list-style-type: none"> • Associated habitat: In Wales it is most frequently found on well-lit trunks of ancient oak trees and rarely on ash, usually in pasture woodlands or in open fields or in hedgerows. • Current status: Welsh Red data list 2010 – Near Threatened • 1985–95 Cynghordy, Dinefwr, Talley lakes. • 2010, Dinefwr. The tree it was found on had fallen and the lichen was lost by 2013 and is now considered extinct at Dinefwr. <p data-bbox="699 1914 1373 2033">Populations are considered to be of international importance, generally on account of their abundance in Britain compared to the rest of the world.</p> <ul data-bbox="699 2033 1373 2404" style="list-style-type: none"> • Threats: <ul style="list-style-type: none"> - The loss of ancient trees through felling and natural collapse, their shading by climbers. - Eutrophication of bark by slurry spreading use of artificial fertilizers - Atmospheric pollutants in the form of acid rain and eutrophication from intensive agriculture - Climate change: any increase in rainfall due to changes in may also pose a threat since it appears to avoid areas of high rainfall. 	<ul data-bbox="1373 1486 1961 1558" style="list-style-type: none"> • Survey suitable areas of parkland in the Tywi Valley for this species.
<p data-bbox="199 2442 514 2478"><i>Parmelinopsis horrescens</i></p>	<ul data-bbox="699 2442 1373 2816" style="list-style-type: none"> • Associated habitat: Prefers smooth neutral–acidic bark of trees such as birch, rowan, alder and young oak in sheltered humid woodlands. • Current status: Welsh Red data list 2010 – Near Threatened • Cwmdu – 2004, 2014 - side valley north of Abergorlech. <p data-bbox="699 2745 1373 2816">Populations are considered to be of international importance, generally on account of their abundance</p>	<ul data-bbox="1373 2442 1961 2513" style="list-style-type: none"> • Survey suitable stands of mature birch in ‘ffridd’ habitat areas of Carmarthenshire.

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 <p>©Ray Woods</p>	<p>in Britain compared to the rest of the world.</p> <p>This lichen is at the northern edge of its range in Wales, which might hold in excess of half the British population.</p> <ul style="list-style-type: none"> • Threats: <ul style="list-style-type: none"> - Sensitivity to ammonia means that this species is vulnerable to impacts from an exceedance of the Critical Level for ammonia from intensive agricultural practices. - The spread of dense evergreen woody trees and climbers (ivy) may have an impact in some sites. 	
<p><i>Rinodina isidiodes</i></p>  <p>© Alan Orange</p>	<ul style="list-style-type: none"> • Associated habitat: Mature trees, ancient woodland. • Current status: Welsh Red data list 2010 – Nationally threatened <p>Populations are considered to be of international importance, generally on account of their abundance in Britain compared to the rest of the world.</p> <ul style="list-style-type: none"> • Cynghordy, Llangathen 1982, Dan y Parc 1995, Dinefwr 2022. • Threats: 	<ul style="list-style-type: none"> • Survey suitable sites.
<p><i>Toninia sedifolia</i></p>  <p>©Ray Woods</p>	<ul style="list-style-type: none"> • Associated habitat: It is not infrequent on calcareous sandy soil in, for example, the cracks between limestone rocks and on rock ledges in coastal areas. It also occurs amongst bryophytes on shell-rich sand dunes once accretion stops and before larger plants can invade. Many sites are rabbit grazed. Rarely on inland limestone. • Wharley Point and Carreg Cennen – 1986 and 2010. • Current status: Welsh Red data list 2010 – Least concern • Threats: ??? 	<p>Likely to be removed from S7 list?</p> <p>BBNP</p>
<p><i>Usnea articulata</i></p>  <p>©Sam Bosanquet</p>	<ul style="list-style-type: none"> • Associated habitat: There are three main habitats: hawthorns in windy places; the leeward side of windy larch plantations; and willow tops in wetlands. Other records come from oak and rowans. The windiness is a common factor. • Its straggly, hair-like, tangled, usually unattached stems that can be up to a metre long, swell at intervals along the main branches to create small green/grey sausage-like strings c. 3mm in diam. • Current status: Welsh Red data list 2010 – Vulnerable <p>Populations are considered to be of international importance, generally on account of their abundance in Britain compared to the rest of the world.</p> <ul style="list-style-type: none"> • Recorded at over 35 sites in county now due to increased knowledge and recorder effort. • Threats: Highly sensitive to sulphur dioxide 	<ul style="list-style-type: none"> • More records to establish distribution. • Use this species to engage with public as easy to identify – send leaflet to schools/farmers unions, etc.
<p><i>Usnea florida</i></p>	<ul style="list-style-type: none"> • Associated habitat: It forms rounded, upright, yellow-green shrub-like colonies on the twigs and smaller branches of trees and shrubs and occasionally on the timber of fences and gates. • Over 40 records in the county since 2000. • Current status: Welsh Red data list 2010 – Least concern <p>Wales holds almost half the British population of this species.</p> <ul style="list-style-type: none"> • Trends: This is a Nitrogen-sensitive species and is declining rapidly in SW England and parts of Wales 	

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 <p>©Alan Hale</p>	<ul style="list-style-type: none"> • Threats: Sensitivity to ammonia means that this species is vulnerable to impacts from an exceedance of the Critical Level for ammonia from intensive agricultural practices. 	
<p>Lobarion assemblages (Assemblage: A number of characteristic species which usually share similar ecological or habitat requirements)</p>  <p><i>Lobaria pulmonaria</i> ©Ray Woods</p>	<ul style="list-style-type: none"> • Associated habitat: Trees with mildly acidic or alkaline bark such as old oak, ash, sycamore, willow, rowan, and hazel. Woodlands with continuity of cover and old growth trees. • Current status: Records for <i>Lobaria pulmonaria</i> from three sites: Dinefwr, the Talley oak avenue and Whitland Abbey. • <i>Agonimia octospora</i> was recorded on 15 trees in Dinefwr Park. • Well-developed Lobarion colonies composed of <i>Sticta</i> species, <i>Nephroma</i>, etc. in Cwm Marlais (Brechfa Forest) and at Pont-felin-gat (NBGW) should be assessed for SSSI notification (Cwm Marlais qualifies). • Threats: <ul style="list-style-type: none"> - Sensitivity to ammonia means that this species is vulnerable to impacts from an exceedance of the Critical Level for ammonia from intensive agricultural practices. Many examples of the Lobarion in Wales are now species poor. - Removal of old growth trees - Shading effect of thick understorey or scrub growth, including invasive species such as rhododendron 	<ul style="list-style-type: none"> • More records required to establish distribution. <p>http://wales-lichens.org.uk/s42-communities/lobarion-community</p>
<p>Metallophyte assemblages (Assemblage: A number of characteristic species which usually share similar ecological or habitat requirements)</p> <p>Photo?</p>	<ul style="list-style-type: none"> • Associated habitat: Records for species from this assemblage at two disused lead mines at Rhandirmywn – Mwyngloddfa Nantymwyn SSSI. <p>The survival of metallophyte lichens is now almost entirely dependent on the conservation of old metal mine sites.</p> <ul style="list-style-type: none"> • Current status: The SSSI notified and qualifying feature at the Mwyngloddfa Nantymwyn SSSI is in favourable condition (2020 NRW protected sites baseline assessment) • Threats: restoration of old metal mine sites. 	