## CARMARTHENSHIRE'S STATE OF NATURE – MOSSES (BRYOPHYTES)

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

Please refer to <u>British Bryological Society</u> for more detailed species description information.

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SPECIES	Carmarthenshire overview	Identified priority action in Carmarthenshire
Baltic Bryum - Bryum marratti	<ul> <li>Associated habitat: Dune</li> <li>Current status: In Carmarthenshire it is found on the north side of Tywyn Burrows, and near Ferryside at Morfa Uchaf, in both cases where freshwater flows from dunes on to grazed salt marsh.</li> <li>Trends: unknown</li> <li>Threats: land use change, Climate Change, coastal realignment</li> </ul>	Grazing of dune—saltmarsh transition for Bryum marratii
Multi-fruited River Moss	Associated habitat: Freshwater	Info passed to local anglers.
Dendrocryphaea lamyana	<ul> <li>Current status: In Carmarthenshire it is found on the Teifi around Cenarth, Henllan, Pont Tyweli and Maesycrugiau, but commoner on the sunny north bank of the river. Also at one site on the Tywi at Nantgaredig – both Special Areas of Conservations It is found on rocks on banks and overhanging trees.</li> <li>Trends: unknown</li> <li>Threats: shading, nutrient enrichment</li> </ul>	
Irish Daltonia	<ul> <li>Associated habitat: Spreading into Wales from Ireland – likes ultra-humid willow in</li> </ul>	No suitable actions.
Daltonia spachnoides	<ul> <li>Current status: In Carmarthenshire, three records from Brechfa Forest and one from near Llyn Brianne.</li> <li>Trends: increasing</li> <li>Threats: none, and no longer a conservation priority</li> </ul>	

Lead Moss	Associated habitat: Mines	• SSSI protection for <i>Ditrichum</i> plumbicola and <i>Scopelophila</i>
Ditrichum plumbicola	<ul> <li>Current status: In Carmarthenshire, found on two disused lead mines at Rhandirmwyn. The main site was designated in 2013 as Mwyngloddfa Nantymwyn SSSI.</li> <li>Trends: stable, following monitoring in 2020</li> <li>Threats: mine remediation works</li> </ul>	cataractae
Tongue-leaved Copper Moss	Associated habitat: Mines	• SSSI protection for <i>Ditrichum</i>
Scopelophila cataractae	<ul> <li>Current status: In Carmarthenshire, found at disused lead mines at Rhandirmwyn. The site was designated in 2013 as Mwyngloddfa Nantymwyn SSSI.</li> <li>A population was also found in 2017 in the Loughor Estuary at Bynea. Many patches were found scattered on the two fingers of slag dumped on the saltmarsh there.</li> <li>Trends: unknown at Rhandirmwyn, stable at Bynea</li> <li>Threats: mine remediation, construction</li> </ul>	plumbicola and Scopelophila cataractae
Awl-leaved Ditrichum Ditrichum subulatum	<ul> <li>Associated habitat: Coastal</li> <li>Current status: In Carmarthenshire, found on acidic banks above coastal creeks. One record from the Taf estuary north of Dylan Thomas' Boathouse, Laugharne.</li> <li>Trends: unknown</li> <li>Threats: coastal erosion</li> </ul>	• Further survey for <i>Ditrichum</i> subulatum (estuary banks)
Portuguese Pocket Moss	Associated habitat: Grassland	Scrub clearance at Dryslwyn Castle  for Fiscidans currentus Discuss with
Fissidens curvatus	<ul> <li>Current status: In Carmarthenshire, found at Dryslwyn castle, but gorse scrub has invaded here, and also recorded on a lane bank near Llandeilo.</li> <li>Trends: declining, probably lost from Dryslwyn Castle</li> <li>Threats: scrub encroachment</li> </ul>	for Fissidens curvatus - Discuss with CADW

Petalwort <i>Petalophyllum ralfsii</i>	Associated habitat: Dune	Management by QINETIQ at Pendine
	• Current status: In Carmarthenshire, found	Range to safeguard Petalwort
	at Laugharne—Pendine Burrows; extinct at Pembrey and Tywyn Burrows	including recent hydrological assessment
	• Trends: increasing at Laugharne-Pendine Burrows following a decline	
	• Threats: dune stabilisation, construction	
Lesser Squirrel Tail Moss	Associated habitat: Woodland	Sycamore protection at Sir John's Hill     for University and a programme silver.
Habrodon perpusillus	• Current status: In Carmarthenshire, found on sycamores at St John's Hill, on the south side of Laugharne.	for Habrodon perpusillus • CCC PROW informed of presence of moss at St John's Hill
	<ul> <li>Trends: Habrodon perpusillus is increasing across south Wales so is no longer considered a significant priority</li> <li>Threats: tree works</li> </ul>	
Spreading-leaved Beardless Moss	Associated habitat: Farmland	Further survey (arable and rye-grass
Weissia squarrosa	• Current status: In Carmarthenshire, found	leys)
	on a verge near Ferryside.	• Pass details on to CCC Highways re verge management.
	<ul><li>Trends: unknown</li><li>Threats: tree planting</li></ul>	
Veilwort Pallavicinia lyellii	Associated habitat: Wetland	Water level management on bogs for <i>Pallavicinia lyellii</i>
	• Current status: In Carmarthenshire, found in tussocky rank <i>Molinia</i> at Cors Goch, Glyn bog, Llyn Llech Owain, Llanpumsaint and recently on a ridge above Rhandirmwyn.	
	• Trends: unknown	
	• Threats: Climate Change, nutrient enrichment	
S7 species found in BBNP area of Carmarthenshire	I	I
Fragile Frillwort Fossombronia fimbriata	<ul> <li>Associated habitat:</li> <li>Current status: In BBNP area of</li> </ul>	Maintain upland grazing for     Fossombronia fimbriata
	Carmarthenshire, found at Pont-ar-Wysg where a sheep track crosses a base-rich	
	flush.	
	• Trends: unknown	
	Threats: river dredging, afforestation	

Pitted Frillwort	Associated habitat:	Further survey - upland pools.
Fossombronia foveolata  Most Fossombronia look identical and their spores need to be checked.	<ul> <li>Current status: In BBNP area of Carmarthenshire, found on banks of Usk Reservoir</li> <li>Trends: unknown</li> <li>Threats: Climate Change</li> </ul>	
Section 7 species previously recorded in the count	ty but now considered extinct here	
Wilson's Pottia - Pottia wilsonii/Tortula wilsonii	Extinct, recorded once near Llansteffan in 1907.	Further survey of coastal slopes near Llansteffan - thin soil on coastal rock
Sea Bryum -Bryum warneum	Not seen in Carms since 1910 but recently found at Whiteford Burrows.	<ul> <li>Dune remobilisation for Bryum warneum and Petalophyllum ralfsii</li> <li>CCC/MOD/NRW all removing sea buckthorn from coastal dunes. NRW recreating slacks at Pendine and Pembrey ranges</li> </ul>
Potential additional Locally Important Species This is a list of other Locally Important Species tha found in Carmarthenshire (post 2000 records) tha • are nationally rare, threatened or scarce • are rare in Carmarthenshire • are Red listed and for which Carmarthenshire has a responsibilit action required.  Bryum dyffrynense,	t: y for ensuring the species survives and prosper Recently found at Laugharne-Pendine Burrows, unknown trend	s and we can identify the conservation
Bryum riparium,  Drongnosladus sandtnari	one record from a stream bank in NE Carmarthenshire, unknown trend	More survey needed

Occurs in one dune slack at Laugharne-

include dune management

Pendine Burrows, unknown trend, threats

Drepanocladus sendtneri