

**CYNLLUN GWEITHREDU BIOAMRYWIAETH LLEOL SIR GAERFYRDDIN - PLANHIGION FASGWLAIDD
CARMARTHENSHIRE LOCAL BIODIVERSITY ACTION PLAN PROTECTED AND LBAP/S42 VASCULAR PLANTS**

Please refer to www.bsbi.org.uk for more detailed species description information

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OVERALL OBJECTIVES

- To identify new sites for survey in the county.
- Encourage volunteer interest in vascular plants.
- To use key species as a focus for public/school engagement.
- To raise awareness of these species and the issues affecting them.

SPECIES	PHOTO	HABITAT/CARMS SITES	ISSUES/ACTION REQUIRED
European Protected Species			
<i>Liparis loeselii</i> (Fen Orchid)		<ul style="list-style-type: none"> • Last seen in Carms at Laugharne Burrows in 2002 and at Tywyn Burrows in 1971, <i>Liparis</i> has now disappeared from all its South Wales sites except Kenfig. • Loss of suitable dune slack habitat cause of decline due to succession. 	<ul style="list-style-type: none"> • New scrapes were made at Laugharne Burrows by CCW in January/February 2005 and the habitat has developed in some of these so they are now suitable for <i>Liparis</i> colonisation but no plants have been seen to date. • Further scrapes have been made in the past couple of years as opportunities have arisen and the hope is that these will also develop to provide suitable habitat in due course. • More scrapes are planned at Laugharne Burrows and two are planned at Tywyn Burrows. • Discussion is ongoing whether to introduce Kenfig seed to Carms sites as has recently been done at Whiteford Burrows on Gower.
Schedule 8 species			
<i>Gentianella uliginosa</i> (Dune Gentian)		<ul style="list-style-type: none"> • Until the 1980s, known at both Laugharne and Tywyn Burrows but confined in recent years to the old helipad at Tywyn Burrows. • In 2012 several plants were also seen by the RAF targets where they'd never been seen previously but no plants of either <i>G. uliginosa</i> or <i>G. amarella</i> (Autumn Gentian) were seen in 2013. 	<ul style="list-style-type: none"> • Annual survey at Tywyn Burrows. • The excavation of new scrapes for <i>Liparis</i> should also benefit the gentians.

<p><i>Silene gallica</i> (Small-flowered Catchfly)</p>		<ul style="list-style-type: none"> • Last seen at its only Carmarthen site, Burry Port Harbour, in 2011. 	<ul style="list-style-type: none"> • Management of harbour walls to expose substrate.
<p><i>Dianthus armeria</i> (Deptford Pink)</p>		<ul style="list-style-type: none"> • The only extant population at Bryndias, Pined, seems to be steadily declining due to the habitat slowly becoming overgrown and the grass-dominated vegetation closing over the once more open substrate. • A second Carmarthenshire population was discovered in 2007 in Llanelli. It appeared the following year but was not seen in 2009 or since. 	<ul style="list-style-type: none"> • Management to disturb ground at Bryndias farm – liaise with owners. • In Sept 2013, a small amount of seed was collected under licence and given to NBGW for <i>ex situ</i> propagation. • Identify sites for potential reintroduction.
<p>Section 42 species</p>			
<p><i>Dactylorhiza viridis</i> (Frog Orchid)</p>		<ul style="list-style-type: none"> • Last seen in the county at Laugharne Burrows c.2002 	

<i>Dianthus armeria</i> (Deptford Pink)	See above		
<i>Euphrasia rivularis</i> (Snowdon Eyebright)		<ul style="list-style-type: none"> • Small populations occur in somewhat base-rich flushes on the Old Red Sandstone on Mynydd Du eastwards to the slopes north of Carmarthen Fan. • Probably not threatened. 	<ul style="list-style-type: none"> • Outside Carms LBAP area.
<i>Euphrasia rostkoviana</i> subsp. <i>montana</i> (Mountain Eyebright)		<ul style="list-style-type: none"> • Quite widespread and locally frequent in unimproved acid grassland in the eastern two-thirds of the county. • Not threatened. 	<ul style="list-style-type: none"> • No action required
<i>Gentianella uliginosa</i> (Dune Gentian)	See above		
<i>Gymnadenia densiflora</i> (Fragrant Orchid)		<ul style="list-style-type: none"> • Small populations at both Laugharne and Tywyn Burrows as well as in base-rich unimproved grassland inland. • Probably not threatened at its coastal duneland sites but loss of inland grassland habitats is probably a severe threat. 	<ul style="list-style-type: none"> • Seek to conserve inland sites in collaboration with land-owners.

<p><i>Gymnadenia borealis</i> (Mountain Fragrant Orchid)</p>		<ul style="list-style-type: none"> • Some inland <i>Gymnadenia</i> populations may be this species which has only recently been given full species status. In the past, the three sub-species (of which <i>G. borealis</i> was one) made up the aggregate species and were not separated by field observers. • Loss of inland grassland habitats is probably a severe threat. 	<ul style="list-style-type: none"> • Further recording required. • Seek to conserve inland sites in collaboration with land-owners.
<p><i>Hammarbya paludosa</i> (Bog Orchid)</p>		<ul style="list-style-type: none"> • Only one small population known in Carme, in a flush in Cwm Twrch. Seems to be holding its own. 	<ul style="list-style-type: none"> • Outside Carme LBAP area
<p><i>Hordeum marinum</i> (Sea Barley)</p>		<p>No longer thought to occur in Carme – in RDP's opinion past records all refer to <i>H. secalinum</i>.</p>	
<p><i>Hypopitys monotropa</i> subsp. <i>hypophegea</i> (Yellow Bird's-nest)</p>		<ul style="list-style-type: none"> • Small populations in the MCP between Pwll and Burry Port and in Pembrey Forest which naturally build-up and decline over a period of c.5 – 10 years or less whilst new sites appear to be colonised. 	<ul style="list-style-type: none"> • Management plan written by MCP ranger with management recommendations. • Annual monitoring
<p><i>Liparis loeselii</i> (Fen Orchid)</p>	<p>See above</p>		

<p><i>Lycopodium clavatum</i> (Stag's-horn Clubmoss)</p>		<ul style="list-style-type: none"> • Mostly confined to Mynydd Mallaen although one small plant was found in 2012 on Mynydd Du. • Its fortunes seem to depend on the intensity of sheep grazing as plants are easily dislodged by sheep trampling on them. However, they appear to be doing better on Mallaen since sheep numbers seem to be reduced. 	<ul style="list-style-type: none"> • Further recording. • Ensure sheep grazing intensity is kept at an appropriate level.
<p><i>Matthiola sinuata</i> (Sea Stock)</p>		<ul style="list-style-type: none"> • Discovered new to Carmarthen at Ginst Point in 2006 and along the dune front of Pendine Sands in 2007. • Since seen (in 2009) by IKM in Pendine village but no reports since, although occasional plants might reappear from seed produced by these first plants. 	<ul style="list-style-type: none"> • Further recording.
<p><i>Melittis melissophyllum</i> (Bastard Balm)</p>		<ul style="list-style-type: none"> • One site on a roadside bank in the Cych valley. • Very vulnerable to inappropriate road bank management or reduction of tree canopy. 	<ul style="list-style-type: none"> • Site recorded as Roadside Nature Reserve. • Site needs to be regularly monitored. • Speak to Streetscene again about management.
<p><i>Mentha pulegium</i> (Pennyroyal)</p>		<ul style="list-style-type: none"> • Native populations recorded from 'goose-grazed pastures' at Brynamman in the 1940s but all recent records are of casual plants of the non-native upright form which does not attract the same high conservation status. 	<ul style="list-style-type: none"> • No action required.

<p><i>Oenanthe fistulosa</i> (Tubular Water-dropwort)</p>		<ul style="list-style-type: none"> • Several small populations in coastal levels marshes, e.g .Laugharne Marshes, Ffrwd and the lower Tywi valley below Carmarthen. • Probably not too threatened. • The inland population at Ynys Uchaf Porthyrhyd has not been seen since 1986. 	<ul style="list-style-type: none"> • Further survey.
<p><i>Platanthera bifolia</i> (Lesser Butterfly-orchid)</p>		<ul style="list-style-type: none"> • Main populations at Whitehill Down Laugharne and Cae Blaen Dyffryn, both consisting of hundreds of plants • Populations probably doing OK although they naturally fluctuate in numbers from year to year. • About 16 smaller populations but most not seen since the 1980s or early 1990s. • Apparent severe decline but there is a dire need for a concerted monitoring effort to determine which populations may be extant. 	<ul style="list-style-type: none"> • Further survey/monitoring. • Seek to conserve extant sites in collaboration with land-owners.
<p><i>Ranunculus tripartitus</i> (Three-lobed Crowfoot)</p>		<ul style="list-style-type: none"> • All old records which are supported by voucher material in NMW have been redetermined as other species. There are no longer any confirmed records in Carms. 	<ul style="list-style-type: none"> • Further survey.
<p><i>Salsola kali</i> subsp. <i>kali</i> (Prickly Saltwort)</p>		<ul style="list-style-type: none"> • Frequent along strand-lines and dune fronts of all the county's dune systems 	<ul style="list-style-type: none"> • No action required.

<p><i>Scleranthus annuus</i> (Annual Knawel)</p>		<ul style="list-style-type: none"> • Rarely encountered in disturbed, gravelly substrates. Most recent records are from Telpyn Farm (2007) and nr. Myddfai (1996). Probably other populations never come to light. 	<ul style="list-style-type: none"> • Further survey.
<p><i>Silene gallica</i> (Small-flowered Catchfly)</p>	<p>See above</p>		
<p><i>Trollius europaeus</i> (Globeflower)</p>		<ul style="list-style-type: none"> • Other than the relatively large no. of plants which grow on the rocky river banks in the Sawdde Gorge, it appears that only two other populations now remain (in the NE of the county) and these are of just one or two plants. • The severe decline in the populations of <i>Trollius</i> is mainly due to agricultural improvement of the pastures in which they once grew. • The Sawdde plants are currently threatened by overshadowing Cherry Laurel and conservation efforts need to be directed at cutting-back this threat. 	<ul style="list-style-type: none"> • Investigate Sawdde population – land owner and grant funding to manage cherry laurel.
<p><i>Vicia orobus</i> (Wood Bitter-vetch)</p>		<ul style="list-style-type: none"> • Although several populations remain in Carms, this species has suffered a severe decline over the past 30-or-so years. • Of the total of 25 tetrad records in the county, only five refer to plants seen since 2000. • Most records are in the north and north-east of the county and, in addition to its classic, traditionally-managed, upland hay-meadow sites, several plants have been recorded on acid, grassy roadside banks, the annual cut of which could mimic hay-meadow management. 	<ul style="list-style-type: none"> • Further survey/monitoring. • Ensure that sites where it grows which are SSSIs are managed appropriately. • Seek to conserve extant sites in collaboration with land-owners.