BRECON TOWN COUNCIL

Environment Wales Act 2016 – Part 1, Section 6

The Biodiversity and Resilience of Ecosystems Duty Report

Introduction and Context

This report has been published to comply with the Council's legal obligation within the Environment (Wales) Act 2016, which imposes a duty to maintain and enhance biodiversity in the proper exercise of the Council's functions and in doing so to promote the resilience of the ecosystems. The Council should embed the consideration of biodiversity and ecosystems into it's thinking and business planning, including within policies, plans and projects as well as day to day activities.

In complying with the s.6 duty, the Council must have regard to:

- The s.7 list of habitats and species of principle importance for Wales (see Appendix A1 and A2)
- The State of Natural Resources Report (SoNaRR) published by NRW, available at https://naturalresources.wales/sonarr?lang=en
- Any Area Statement which covers all or part of the area in which the authority exercises its functions, once these are produced.

The Nature Recovery Action Plan for Wales contains six objectives which the Council should use to help develop and guide actions and are as follows:

- Engage and support participation and understanding to embed biodiversity throughout decision making at all levels
- Safeguard species and habitats of principal importance and improve their management. Including the requirement on Welsh Ministers to prepare and publish a list of the living organisms and types of habitat which are of principal importance for the purpose of maintaining and enhancing biodiversity in Wales
- Increase the resilience of our natural environment by restoring degraded habitats and habitat creation
- Tackle key pressures on species and habitats
- Improve our evidence, understanding and monitoring; and,
- Put in place a framework of governance and support for delivery

Brecon Town Council will use the above responsibilities to maximise its contributions towards the well being goals within the Well-being of Future Generations (Wales) Act 2015, and this report should be read alongside Brecon Town Council's Annual Reports.

What are we doing already?

Action carried out to:		Monitored by:
-embed biodiversity into decision making and procurement	-taking into account biodiversity generally when considering planning applications -contributing to Active Travel consultations and requesting that Active Travel is considered in planning consultations	-Planning, Guildhall and Staffing Committee by monitoring impact of biodiversity matters and requirements within planning applications
-raise awareness of biodiversity and its importance	-distribution of free wildflower seeds to children at and event to encourage them to take an interest in their environment -supporting of appropriate grant applications that consider biodiversity	-Environment and Events Committee -Finance and Commissioning of Contracts Committee
-safeguard principal species and habitats	-managing land in accordance with advice given by specialist advisors in relation to habitat to ensure no negative impact on protected species	-Environment and Events Committee
-restore and create habitats and resilient ecological networks	-Planting hanging baskets and planters with pollinator friendly plants and flowers -formation of strategic plan for Council's green spaces, pursuant to results of Brecon 20:20 survey -creation of habitat following tree surgery	-Environment and Events Committee
-tackle negative factors: e.g. reduce pollution, use nature	-Taking active lead on project to prevent potential future	-Environment and Events Committee (Fishing Section)

based solutions, address invasive species	pollution incident in the River Usk	
-use, improve and share evidence	-collating evidence of erosion at River Usk	-Environment and Events Committee (Fishing Section)
-support capacity and/or other organisations	-working within advice given by Local Wildlife Trust in relation to habitats on our land and solutions for local wildlife issues -working with Natural Resources Wales in connection with potential future pollution incident in the River Usk	-Environment and Events Committee -Environment and Events Committee (Fishing Section)

- What has worked well? *Collaborative community working in respect of tree planting, wildflower meadow and erosion monitoring.*

- What have the barriers been?

- What will you change? *Undertake consultation and seek further guidance and collaboration in relation to land management plan for Island Fields. Additional planters to be provided in town centre.*

- How and when will the s6 duty be monitored and the s6 plan reviewed?

  The duty will be monitored through the Environment and Events Committee ,and it is recommended that this Committee next reviews its section 6 Action Plan in late 2025.

January 2025

Llywodraeth Cymru
Welsh Government

Environment (Wales) Act 2016

Section 7 – list of the living organisms of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales.

Note: This interim list, which is exactly the same as the previous list under Section 42 of the NERC Act, is under review in consultation with NRW.

Deddf yr Amgylchedd (Cymru) 2016

Adran 7 - rhestr o'r organeddau byw o'r pwysigrwydd pennaf at ddiben cynnal a gwella bioamrywiaeth mewn perthynas â Chymru.

Noder: Mae'r rhestr dros dro, sydd yn union yr un fath a'r rhestr flaenorol o dan Adran 42 o Ddeddf NERC, yn cael ei adolygu mewn ymgynghoriad â CNC.

Ψ Wales only species; † original S74 species
Ψ Rhywogaethau Cymru'n unig; † rhywogaethau Adran 74 gwreiddiol

Mammals / Mamaliad (17 species/rhywogaeth)			**Revisions/Newidiadau**
Arvicola terrestris	Water vole†	Llygoden bengron y dŵr	
Barbastella barbastellus	Barbastelle bat†	Ystlum du	
Erinaceus europaeus	West European hedgehog	Draenog	
Lepus europaeus	Brown hare†	Ysgyfarnog	
Lutra lutra	Otter†	Dyfrgi	
Martes Martes	Pine marten	Bele'r coed	
Micromys minutus	Harvest mouse	Llygoden yr ŷd	
Muscardinus avellanarius	Dormouse†	Pathew	
Mustela putorius	Polecat	Ffwlbart	
Myotis bechsteinii	Bechstein's bat†	Ystlum Bechstein	
Nyctalus noctula	Noctule	Ystlum mawr	
Pipistrellus pipistrellus	Common Pipistrelle†Ψ	Ystlum lleiaf	
Pipistrellus pygmaeus	Soprano Pipistrelle†	Ystlum lleiaf meinlais	
Plecotus auritus	Brown long-eared bat	Ystlum hirglust	
Rhinolophus ferrumequinum	Greater horseshoe bat†	Ystlum pedol mwyaf	
Rhinolophus hipposideros	Lesser horseshoe bat†	Ystlum pedol lleiaf	
Sciurus vulgaris	Red squirrel†	Gwiwer goch	

Birds /Adar (51 species/rhywogaeth)			
Acrocephalus paludicola	Aquatic warbler†	Telor y dŵr	
Alauda arvensis subsp. arvensis/scotica	Skylark†	Ehedydd	

Anser albifrons subsp. flavirostris	Greenland greater white-fronted goose	Gŵydd dalcen-wen yr Ynys Las	
Anthus trivialis	Tree pipit	Corhedydd y coed	
Botaurus stellaris	Great bittern†	Aderyn y bwn	
Branta bernicula subsp. bernicula	Dark-bellied brent goose	Gwydd ddu Siberia	
Caprimulgus europaeus	European nightjar†	Troellwr mawr	
Carduelis cabaret	Lesser redpoll	Llinos bengoch fach	
Carduelis cannabina subsp. autochthona/cannabina	Common linnet†	Llinos	
Carduelis flavirostris subsp. bensonorum/pipilans	Twite	Llinos y mynydd	
Charadrius hiaticula	Ringed plover **Ψ**	Cwtiad torchog	
Circus cyaneus	Hen harrier†**Ψ**	Boda tinwyn	
Coccothraustes coccothraustes	Hawfinch	Gylfinbraff	
Crex crex	Corncrake†	Rhegen yr ŷd	
Cuculus canorus	Common cuckoo	Cog	
Cygnus columbianus subsp. Bewickii	Tundra swan = Bewick's swan	Alarch Bewick	
Dendrocopus minor subsp. Comminutus	Lesser spotted woodpecker	Cnocell fraith leiaf	
Emberiza calandra subsp. calandra/clanceyi	Corn bunting†	Bras yr ŷd	
Emberiza citrinella	Yellowhammer†	Bras melyn	
Emberiza schoeniclus	Reed bunting†	Bras y cyrs	
Falco tinnunculus	Kestrel**Ψ**	Cudyll coch	
Ficedula hypoleuca	Pied flycatcher**Ψ**	Gwybedog brith	
Lagopus lagopus subsp. scotica	Red grouse	Grugiar goch	
Lanius collurio	Red-backed shrike	Cigydd cefngoch	
Larus argentatus subsp. argenteus	Herring gull	Gwylan y penwaig	
Larus ridibundus	Black-headed Gull**Ψ**	Gwylan benddu	
Limosa lapponica	Bar-tailed godwit**Ψ**	Rhostog gynffonfraith	
Locustella naevia	Common grasshopper warbler	Troellwr bach	
Lullula arborea	Woodlark	Ehedydd y coed	
Melanitta nigra	Common scoter†	Môr-hwyaden ddu	
Motacilla flava subsp. flavissima	Yellow wagtail	Siglen felen	
Muscicapa striata	Spotted flycatcher†	Gwybedog mannog	
Numenius arquata	Eurasian curlew†	Gylfinir	
Parus montanus subsp. Kleinschimdti	Willow tit	Titw'r helyg	
Parus palustris subsp. palustris/dresseri	Marsh tit	Titw'r wern	
Passer domesticus	House sparrow	Aderyn y to	
Passer montanus	Eurasian tree sparrow†	Golfan y mynydd	
Perdix perdix	Grey partridge†	Petrisen	
Phylloscopus sibilatrix	Wood warbler	Telor y coed	
Pluvialis apricaria	Golden plover†**Ψ**	Cwtiad aur	
Prunella modularis subsp. Occidentalis	Hedge accentor (Dunnock, Hedge sparrow)	Llwyd y gwrych	
Puffinus mauretanicus	Balearic shearwater	Aderyn drycin y Balearig	
Pyrrhocorax pyrrhocorax	Chough†**Ψ**	Brân goesgoch	
Pyrrhula pyrrhula subsp. pileata	Common bullfinch†	Coch y berllan	
Sterna dougallii	Roseate tern†	Môr-wennol wridog	

Stretopelia turtur	European turtle dove†	Turtur	
Sturnus vulgaris subsp. vulgaris	Common starling	Drudwen	
Tetrao tetrix subsp. britannicus	Black grouse†	Grugiar ddu	
Turdus philomelos subsp.clarkei	Song thrush†	Bronfraith	
Turdus torquatus	Ring ouzel	Mwyalchen y mynydd	
Vanellus vanellus	Northern lapwing†	Cornchwiglen	

Fish / Pysgod (10 species/rhywogaeth)			
Alosa alosa	Allis shad†	Herlyn	
Alosa fallax	Twaite shad†	Gwangen	
Anguilla anguilla	European eel	Llysywen	
Coregonus lavaretus	Whitefish (Powan, Gwyniad, or Schelly)	Gwyniad (Gwyniad Llumonwy, Gwyniad Derwennydd)	
Lampetra fluviatilis	River lamprey	Llysywen bendoll yr afon	
Osmerus eperlanus	Smelt (Sparling)	Brwyniad Conwy	
Petromyzon marinus	Sea lamprey	Llysywen bendoll y môr	
Salmo salar	Atlantic salmon	Eog	
Salmo trutta	Brown / Sea trout	Brithyll / Siwin	
Salvelinus alpinus	Arctic char	Torgoch	

Reptiles and amphibians / Ymlusgiaid ac Amffibiaid (8 species/rhywogaeth)			
Anguis fragilis	Slow-worm	Neidr ddefaid	
Bufo bufo	Common toad	Llyffant dafadennog	
Epidalea calamita	Natterjack toad†	Llyffant y twyni	
Lacerta agilis	Sand lizard†	Madfall y tywod	
Zootoca vivipara	Common lizard	Madfall	
Natrix natrix	Grass snake	Neidr y gwair / neidr y glaswellt	
Triturus cristatus	Great crested newt†	Madfall ddwr gribog	
Vipera berus	Adder	Gwiber	

Invertebrates / Anifeiliaid Di-asgwrn-cefn (188 species/rhywogaeth)			
Acronicta psi	Grey dagger	Bidog llwyd	
Acronicta rumicis	Knot grass	Bidog y tafol	
Adscita statices	The forester	Coediwr	
Agonopterix atomella	A micro-moth	Micro-wyfyn	
Agonum scitulum	A ground beetle	Chwilen ddaear	
Agrochola helvola	Flounced chestnut	Castan Grech	
Agrochola litura	Brown-spot pinion	Castan smotyn brown	
Agrochola lychnidis	Beaded chestnut	Castan leiniog	
Allophyes oxyacanthae	Green Brindled crescent	Cilgant brych	
Amphipoea oculea	Ear moth	Clustwyfyn llygeidiog	
Amphipyra tragopoginis	Mouse moth	Ôl-adain lyglwyd	
Anania funebris	A Pyralid moth	Gwyfyn o deulu'r Pyralidiau	
Andrena tarsata	A mining bee (yn GyrA)	Gwenynen durio	
Apamea anceps	Large nutmeg	Brithyn ocraidd	
Apamea remissa	Dusky brocade	Brithyn llwydolau	
Aporophyla lutulenta	Deep-brown dart	Gwladwr brownddu	
Arctia caja	Garden tiger	Teigr yr ardd	
Argynnis adippe	High brown fritillary†	Britheg frown	
Asilus crabroniformis	Hornet robber fly†	Pryf llofrudd	

Asteroscopus sphinx	The sprawler	Cwcwll bwaog	
Atethmia centrago	Centre-barred sallow	Melyn yr onnen	
Austropotamobius pallipes	White-clawed freshwater crayfish†	Cimwch dŵr croyw	
Bembidion quadripustulatum	A ground beetle	Chwilen ddaear	
Bembidion testaceum	A ground beetle†	Chwilen ddaear	
Bidessus minutissimus	A diving beetle†	Chwilen blymio	
Blepharita adusta	Dark brocade	Pali tywyll	
Boloria euphrosyne	Pearl-bordered fritillary†	Britheg berlog	
Boloria selene	Small pearl-bordered fritillary	Britheg berlog fach	
Bombus humilis	Brown-banded carder-bee†	Cardwenynen lwydfrown	
Bombus muscorum	Moss carder-bee	Cardwenynen y mwsogl	
Bombus ruderarius	Red-shanked carder-bee	Cardwenynen goesgoch	
Bombus ruderatus	Large garden bumblebee	Gwenynen bwm yr ardd	
Bombus sylvarum	Shrill carder-bee†	Cardwenynen feinlais	
Brachylomia viminalis	Minor shoulder-knot	Gwargwlwm bach	
Brachyptera putata	Northern February red†	Coch y mis bach (math o bryf cerrig)	
Calosoma inquisitor	A ground beetle	Chwilen ddaear	
Carabus monilis	A ground beetle	Chwilen ddaear	
Caradrina morpheus	Mottled rustic	Gwladwr brith	
Celaena haworthii	Haworth's minor	Gwyfyn plu'r gweunydd	
Celaena leucostigma	The crescent	Clustwyfyn cilgantog	
Chesias legatella	The streak	Rhesen y banadl	
Chesias rufata	Broom-tip	Rhesen gam	
Chiasmia clathrata	Latticed heath	Seffyr delltog	
Chlaenius tristis	A ground beetle	Chwilen ddaear lwydaidd	
Chrysis fulgida	A ruby-tailed wasp	Cacynen gynffon ruddem	
Cicindela hybrida	A tiger beetle†	Chwilen deigr groesryw	
Cliorismia rustica	A Stiletto-fly†	Pryf pigfain	
Coenagrion mercuriale	Southern damselfly†	Mursen Penfro	
Coenonympha pamphilus	Small heath	Gweirlöyn bach y waun	
Coenonympha tullia	Large heath	Gweirlöyn mawr y waun	
Cosmia diffinis	White-spotted pinion†	Llwyfwyfyn brith	
Cossus cossus	Goat moth	Gwyfyn drewllyd	
Cryptocephalus decemmaculatus	A leaf beetle / Ten spotted beetle	Chwilen ddail ddeg smotyn	
Cupido minimus	Small blue	Glesyn bach	
Cyclophora pendularia	Dingy mocha	Moca tywyll	
Cylindera germanica	A tiger beetle†	Chwilen deigr	
Cymatophorima diluta	Oak lutestring	Tant y derw	
Dasypolia templi	Brindled ochre	Cwcwll melynaidd	
Diarsia rubi	Small square-spot	Smotyn sgwâr bach	
Diloba caeruleocephala	Figure of eight	Crwbach ffigwr wyth	
Dipoena inornata	A Comb-footed spider	Copyn/corryn coes gribog	

Dolomedes plantarius	Fen raft spider†	Corryn rafftio'r ffen	
Donacia aquatica	A reed beetle	Chwilen gyrs	
Donacia bicolora	A reed beetle	Chwilen gyrs	
Ecliptopera silaceata	Small phoenix	Ffenics bach	
Empis limata	A dance fly	Pryf dawnsio	
Ennomos erosaria	September thorn	Carpiog Medi	
Ennomos fuscantaria	Dusky thorn	Carpiog tywyll	
Ennomos quercinaria	August thorn	Carpiog Awst	
Entephria caesiata	Grey mountain carpet	Brychan llwyd y mynydd	
Epirrhoe galiata	Galium carpet	Brychan y friwydd	
Erigone welchi	A money-spider	Copyn lwcus	
Eriopygodes imbecilia	The silurianΨ	Gwyfyn Gwent	
Erynnis tages	Dingy skipper	Y gwibiwr llwyd	
Eucera longicornis	Long-horned Bee	Gwenynen gorniog	
Eugnorisma glareosa	Autumnal rustic	Gwladwr yr hydref	
Eulithis mellinata	The spinach	Brychan cyrens	
Eurodryas aurinia	Marsh fritillary†	Britheg y gor	
Eustroma reticulatum	Netted carpet moth†	Brychan rhwydog	
Euxoa nigricans	Garden dart	Dart y gerddi	
Euxoa tritici	White-line dart	Dart gwynresog	**Added SG6 item 13**
Formicoxenus nitidulus	Shining guest ant	Morgrugyn gwestai gloyw	
Graphiphora augur	Double dart	Dart deunod	
Gryllotalpa gryllotalpa	Mole cricket	Cricsyn y tes	
Hagenella clathrata	A caddis fly (yn gyra)	Pryf gwellt delltog	
Haplodrassus dalmatensis	A spider	Copyn/corryn	
Harpalus melancholicus	A ground beetle	Chwilen ddaear	
Heliophobus reticulata	Bordered gothic†	Rhwyll ymylog	
Hemaris tityus	Narrow-bordered bee hawk-moth†	Gwalchwyfyn gwenynaidd ymyl gul	
Hemistola chrysoprasaria	Small emerald	Emrallt barf yr hen ŵr	
Hepialus humuli	Ghost moth	Chwimwyfyn rhithiol	
Hipparchia semele	Grayling	Gweirlöyn llwyd	
Hoplodrina blanda	The rustic	Llwyd llyfn	
Hydraecia micacea	Rosy rustic	Gwladwr gwridog	
Hydrochara caraboides	Lesser silver water beetle†Ψ	Chwilen-blymio ariannaidd leiaf (Gwell: chwilen blymio ariannaidd fach)	
Hydroporus rufifrons	A diving beetle†	Chwilen blymio	
Idea contiguaria	Weaver's waveΨ	Ton Gwynedd	
Idaea dilutaria	Silky wave†	Ton sidan	
Idiocera sexguttata	A cranefly	Pryf teiliwr chwe smotyn	
Isogenus nubecula	A stonefly	Pryf cerrig	
Jodia croceago	Orange upperwing†	Uwchadain oren	
Lampronia capitella	Currant shoot-borer	Tyllwr egin cwrens	
Lasiommata megera	Wall brown	Gweirlöyn y cloddiau	
Leptidea sinapis	Wood white	Gwyn y coed	
Limenitis camilla	White admiral	Mantell wen	
Lipsothrix errans	A cranefly†	Pryf teiliwr crwydrol	
Lipsothrix nervosa	A cranefly†	Pryf teiliwr gïeuog	
Lipsothrix nigristigma	A cranefly	Pryf teiliwr smotyn du	
Lophopus crystallinus	A freshwater bryozoan	Bryosoad dŵr croyw	

Lucanus cervus	Stag beetle†	Chwilen gorniog	
Lycia hirtaria	Brindled beauty	Rhisglyn brith	
Lycia zonaria subsp. britannica	Belted beauty†	Rhisglyn y morfa	
Macaria wauaria	V moth	Seffyr y ffyrch	
Malacosoma neustria	The lackey	Gwaswyfyn	
Margaritifera margaritifera	Freshwater pearl mussel†	Misglen berlog yr afon	
Mecopisthes peusi	A money spider	Corryn lwcus	
Meioneta mollis	A money spider	Corryn lwcus	
Melanchra persicariae	Dot moth	Gwyfyn dotiog	
Melanchra pisi	Broom moth	Gwyfyn y banadl	
Melanthia procellata	Pretty chalk carpet	Brychan hardd y calch	
Meloe proscarabaeus	An oil-beetle	Chwilen olew	
Meloe rugosus	An oil-beetle	Chwilen olew	
Meloe violaceus	An oil-beetle	Chwilen olew	
Meotica anglica	A rove beetle†	Chwilen grwydr	
Mesoligia literosa	Rosy minor	Corrach gwridog	
Minoa murinata	Drab looper	Dolennwr llwydfelyn	
Monocephalus castaneipes	A money spider	Corryn lwcus	
Mythimna comma	Shoulder-striped wainscot	Gwensgod gwar rhesog	
Myxas glutinosa	Glutinous snail†	Malwen ludiog	
Nemapogon picarella	A micro-moth	Micro-wyfyn	
Nematopogon magna	A micro-moth	Micro-wyfyn	
Nigrobaetis niger	Iron blue mayfly	Gwybedyn Mai haearnlas	
Noctua orbona	Lunar yellow underwing†	Isadain felen loerol	
Notioscopus sarcinatus	A money spider	Corryn lwcus	
Ochthebius poweri	A water beetle	Chwilen ddŵr	
Odontomyia hydroleon	A soldier fly†	Pryf soldiwr	
Odynerus melanocephalus	A mason-wasp	Saerbicwnen benddu	
Omphiscola glabra	Mud snail	Malwen y llaid	
Orthonama vittata	Oblique carpet	Brychan lletraws	
Orthosia gracilis	Powdered quaker	Crynwr llychlyd	
Osmia parietina	A mason bee†	Saerwenynen	
Osmia xanthomelana	A mason bee†	Saerwenynen	
Panagaeus cruxmajor	A ground beetle†	Chwilen ddaear	
Pelurga comitata	Dark spinach	Brychan y wermod	
Perizoma albulata subsp. albulata	Grass rivulet	Gwregys y gwair	
Philodromus fallax	A running crab-spider	Cranc-gorryn y tywod	
Phyllonorycter sagitella	A micro-moth	Micro-wyfyn	
Pisidium tenuilineatum	Fine-lined pea mussel†	Misglen rhesi main	
Plebejus argus	Silver-studded blue†	Glesyn serennog	
Polia bombycina	Pale shining brown†	Gwyfyn arennau disglair	
Potamanthus luteus	A mayfly	Gwybedyn Mai	
Pseudanodonta complanata	Depressed river mussel†	Misglen yr afon bantiog	
Pyrausta sanguinalis	A pyralid moth	Perl coch ac aur	
Pyrgus malvae	Grizzled skipper	Gwibiwr brith	
Rhabdomastix japonica	A cranefly	Pryf teiliwr	
Rheumaptera hastata	Argent and sable†	Brychan du a gwyn	
Rhizedra lutosa	Large wainscot	Gwelltwyfyn mawr	**Added SG6 item 13**
Saaristoa firma	A money spider	Corryn lwcus	

Sabra harpagula	Scarce hook tip**Ψ**	Bachadain brin	
Satyrium w-album	White letter hairstreak	Brithribin wen	
Scopula marginepunctata	Mullein wave	Ton arfor	
Scotopteryx bipunctaria	Chalk carpet	Brychan y calch	
Scotopteryx chenopodiata	Shaded broad-bar	Rhesen lydan dywyll	
Sitticus caricis	A jumping spider	Corryn neidio	
Spilosoma lubricipeda	White ermine	Ermin gwyn	
Spilosoma luteum	Buff ermine	Ermin llwydfelyn	
Stilbia anomala	The anomalous	Llwyd gloyw	
Synanthedon scoliaeformis	Welsh clearwing**†Ψ**	Cliradain Gymreig	
Synaptus filiformis	Hairy click beetle**†**	Chwilen glec flewog	
Thecla betulae	Brown hairstreak**†**	Brithribin brown	
Thinobius newberyi	A rove beetle**†**	Chwilen grwydr	
Tholera cespitis	Hedge rustic	Rhwyll y crawcwellt	
Tholera decimalis	Feathered gothic	Rhwyll bluog	
Timandra comae	Blood-vein	Gwyfyn gwythïen goch	
Trichiura crataegi	Pale eggar	Wylun gwelw	
Tyria jacobaeae	The cinnabar	Teigr y benfelen	
Vertigo angustior	Narrow-mouthed whorl snail**†**	Malwen droellog geg gul	
Vertigo geyeri	Geyer's whorl snail**†**	Malwen droellog Geyer	
Vertigo moulinsiana	Desmoulin's whorl snail**†**	Malwen droellog Desmoulin	
Watsonalla binaria	Oak Hook-tip	Bachadain y derw	
Xanthia gilvago	Dusky-lemon sallow	Melyn y llwyf	
Xanthia icteritia	The sallow	Melyn penfelyn	
Xanthorhoe decoloraria	Red carpet	Brychan coch	
Xanthorhoe ferrugata	Dark-barred twin-spot carpet	Brychan deusmotiog tywyll	
Xestia agathina	Heath rustic	Clai'r rhos	
Xestia ashworthii	Ashworth's rustic	Gwladwr Cymreig	
Xestia castanea	Neglected rustic	Clai'r waun	
Xylena exsoleta	Sword-grass**†**	Cleddwyfyn cyffredin	

Vascular plants / Planhigion fasgwlaidd (77 species and 1 Hieracium sp. Group/ 77 rhywogaeth ac 1 grŵp Hieracium)			
Artemisia campestris subsp. maritima	Field wormwood	Y feidiog ddi-sawr	
Asparagus prostratus	Wild asparagus**†**	Merllys gorweddol	
Asplenium trichomanes subsp. pachyrachis	A maidenhair spleenwort**Ψ**	Duegredynen gwallt y forwyn	
Blysmus compressus	Flat-sedge	Corsfrwynen arw	
Bupleurum tenuissimum	Slender Hare`s-ear	Paladr trwyddo eiddilddail	
Campanula patula	Spreading bellflower**†**	Clychlys ymledol	
Carex divisa	Divided sedge	Hesgen ranedig	
Centaurea cyanus	Cornflower	Glas yr ŷd	
Centaurium scilloides	Perennial centaury	Canrhi barhaol	
Cephalanthera longifolia	Narrow-leaved Helleborine	Caldrist gulddail	
Cerastium nigrescens (=*Cerastium arcticum*)	Arctic mouse-ear	Clust-y-llygoden ogleddol	**Taxonomic revision SG13[1]**
Chamaemelum nobile	Chamomile**†**	Camri	
Cicendia filiformis	Yellow centaury	Canrhi felen eiddil	
Clinopodium acinos	Basil thyme	Brenhinllys y maes	

Cotoneaster cambricus	Wild cotoneaster†	Cotoneaster y Gogarth	
Dactylorhiza purpurella var. cambrensis (=*Dactylorhiza purpurella subsp. cambrensis*)	A Marsh orchid	Tegeirian y gors	**Taxonomic revision SG 13[1]**
Dactylorhiza viridis	Frog orchid	Tegeirian y broga	
Dianthus armeria	Deptford pink†	Penigan y porfeydd	
Euphrasia cambrica	An eyebright†	Effros Cymreig	
Euphrasia officinalis subsp. anglica (=*Euphrasia anglica*)	Glandular eyebright	Effros Lloegr	**Taxonomic revision SG 13[1]**
Euphrasia ostenfeldii	An eyebright	Effros Ostenfeld	
Euphrasia pseudokerneri	Chalk eyebright	Effros y calch	
Euphrasia rivularis	An eyebright†	Effros y nant	
Euphrasia officinalis subsp. monticola (=*Euphrasia rostkoviana subsp. montana*)	An eyebright	Effros	**Taxonomic revision SG 13[1]**
Fumaria purpurea	Purple ramping-fumitory†	Mwg y ddaear glasgoch	
Galeopsis angustifolia	Red hemp-nettle†	Y Benboeth gulddail	
Galeopsis segetum	Downy hemp-nettle**Ψ**	Y Benboeth	
Galeopsis speciosa	Large-flowered hemp-nettle**Ψ**	Y Benboeth amryliw	
Gentianella anglica	Early gentian	Crwynllys cynnar	
Gentianella campestris	Field gentian†	Crwynllys y maes	
Gentianella uliginosa	Dune gentian†	Crwynllys Cymreig	
Gymnadena borealis	Northern fragrant orchid**Ψ**	Tegeirian pêr gogleddol	
Gymnadena conopsea	Fragrant orchid**Ψ**	Tegeirian pêr	
Gymnadena densiflora	Marsh fragrant orchid**Ψ**	Tegeirian pêr y gors	
Hammerbya paludosa	Bog orchid**Ψ**	Tegeirian bach y gors	
Hieracium spp.: *Hieracium angustatiforme* *Hieracium breconicola* *Hieracium reticulum* *Hieracium radyrense* *Hieracium snowdoniense* *Hieracium subminutidens*	6 threatened endemic species**Ψ**	6 rhywogaeth endemig dan fygythiad	
Hordeum marinum	Sea barley	Haidd y morfa	
Hypopitys monotropa (=*Monotropa hypopitys*)	Yellow bird`s-nest	Cytwf	**Taxonomic revision SG 13 G[1]**
Hypopitys monotropa subsp hypophegea (=*Monotropa hypopitys subsp hypophegea*)	A bird's-nest	Cytwf	**Taxonomic revision SG 13 G[1]**
Hypopitys monotropa subsp monotropa (=*Monotropa hypopitys subsp hypopitys*)	A bird`s-nest	Cytwf	**Taxonomic revision SG 13 G[1]**
Juniperus communis	Juniper†	Merywen	
Juniperus communis subsp. hemisphaerica	A juniper**Ψ**	Merywen	
Liparis loeselii	Fen orchid†	Gefell-lys y fignen	
Luronium natans	Floating water plantain†	Dŵr-lyriad nofiadwy	
Lycopodiella inundata	Marsh clubmoss†	Cnwp-fwsogl y gors	
Lycopodium clavatum	Stag's-horn clubmoss**Ψ**	Cnwp-fwsogl corn carw	
Matthiola sinuata	Sea stock	Murwyll arfor	
Melittis melissophyllum	Bastard balm	gwenynog	
Mentha pulegium	Pennyroyal†	Brymlys	
Neotinea ustulata	Burnt orchid	Tegeirian llosg	
Oenanthe fistulosa	Tubular water-dropwort	Cegiden bibellaidd	

Ophrys insectifera	Fly orchid	Tegeirian y clêr	
Pilularia globulifera	Pillwort†	Pelenllys	
Platanthera bifolia	Lesser butterfly-orchid	Tegeirian llydanwyrdd bach	
Poa glauca	Glaucous meadow-grass	Gweunwellt llwydlas	
Polystichum lonchitis	Holly-fern	Rhedynen gelyn	
Potamogeton compressus	Grass-wrack pondweed†	Dyfrllys camleswellt	
Potentilla rupestris	Rock cinquefoil†	Pumnalen y graig	
Pseudorchis albida	Small-white orchid	Tegeirian bach gwyn	
Pulicaria vulgaris	Small fleabane	Cedowydd	
Ranunculus arvensis	Corn buttercup	Blodyn-ymenyn yr ŷd	
Ranunculus tripartitus	Three-lobed water-crowfoot†	Crafanc-y-frân dridarn	
Rumex rupestris	Shore dock†	Tafolen y traeth	
Salsola kali subsp. kali	Prickly saltwort	Helys pigog	
Saxifraga cespitosa	Tufted saxifrage	Tormaen siobynnog	
Scandix pecten-veneris	Shepherd's needle†	Crib Gwener	
Scleranthus annuus	Annual knawel	Dinodd unflwydd	
Scleranthus annuus subsp. annuus	Annual knawel	Dinodd unflwydd	
Silene gallica	Small - flowered catchfly†	Gludlys amryliw	
Sorbus eminens	A whitebeam	Cerddinen Mynwy	
Sorbus leptophylla	A whitebeam	Cerddinen Gymreig	
Sorbus leyana	Ley's whitebeam†	Cerddinen y darren fach	
Sorbus minima	A whitebeam	Cerddinen wen fach	
Stellaria palustris	Marsh stitchwort	Serenllys llwydlas	
Trollius europaeus	Globe-flowerΨ	Cronnell	
Vicia orobus	Wood bitter-vetchΨ	Ffacbysen chwerw	
Viola lactea	Pale dog-violet	Fioled welw	
Woodsia ilvensis	Oblong woodsia†	Cor-redynen hirgul	

Lichens /Cen (67 species and 2 communities)			
Anaptychia ciliaris subsp. ciliaris	A lichen	Prysgwydden y coed	
Arthonia atlantica	A lichen	Cen	
Bacidia circumspecta	A lichen	Cen	
Bacidia incompta	A lichen†	Cen	
Biatoridium monasteriense	A lichen†	Cen	
Blarneya hibernica	A lichen	Cen	
Bryoria smithii	A lichen†	Cen	
Buellia hyperbolica	A lichen	Cen	
Calicium adspersum	A lichen	Cen	
Caloplaca atroflava	A lichen	Cen	
Caloplaca flavorubescens	A lichen	Cen	
Caloplaca herbidella	A lichen	Cen	
Caloplaca lucifuga	A lichen	Cen	
Caloplaca luteoalba	Orange-fruited elm lichen†	Cen llwyfen ffrwythau oren	
Chaenotheca phaeocephala	A lichen†	Cen	
Cladonia peziziformis	A lichen†	Cen	
Collema dichotomum	River-jelly lichen†	Cen gwymonaidd yr afon	
Collema fasciculare	A lichen	Cen	
Collema fragile	A lichen	Cen	

Collema fragrans	A lichen	Cen	
Cryptolechea carneolutea	A lichen	Cen	**Added SG 13 G**
Endocarpon adscendens	A lichen	Cen	
Fulgensia fulgens	A lichen	Wygen y twyni	
Fuscopannaria sampaiana	A lichen	Cen	
Gomphillus calycioides	A lichen	Cen	
Graphina pauciloculata	A lichen†	Cen	
Gyalecta flotowii	A lichen**Ψ**	Cafneddgen Flotow	
Heterodermia leucomela	Ciliate strap-lichen†	Cen rhuban blewog	
Lecania chlorotiza	A lichen	Cen	
Lecanographa amylacea	A lichen	Cen	
Lecanora achariana	Tarn lecanora	Cen llyn mynydd	
Lecanora quercicola	A lichen	Cen	
Lecanora sublivescens	A lichen	Cen	
Leptogium brebissonii	A lichen	Cen	
Leptogium cochleatum	A lichen	Cen	
Lobarion community	A lichen community**Ψ**	Cymuned o gen (*Lobarion*)	**See Annex 1**
Megalospora tuberculosa	A lichen	Cen	
Melaspilea lentiginosa	A lichenicolous fungus	Un o'r ffyngau cen	
Mine site community	A lichen community**Ψ**	Cymuned o gen (*safleoedd mwynglawdd*)	**See Annex 1**
Opegrapha prosodea	A lichen	Cen	
Parmelina carporrhizans [=*Parmelina quercina*]	A lichen	Cen	**Taxonomic revision SG 13 G[3]**
Parmeliella testacea	A lichen	Cen	
Parmelinopsis horrescens	A lichen**Ψ**	Cen	
Parmotrema robustum	A lichen	Cen	
Peltigera venosa	A lichen	Cen	
Pertusaria velata	A lichen	Cen	
Physcia tribacioides	Southern grey physcia	Ffysgia llwyd y de	
Porina effilata	A lichen	Cen	
Porina hibernica	A lichen	Cen	
Pseudocyphellaria intricata	A lichen	Cedennog blawd llwyd	
Pseudocyphellaria lacerata	Ragged pseudocyphellaria	Cen cedennog llarpiog	
Pseudocyphellaria norvegica	A lichen†	Cen	
Pyrenula hibernica	A lichen	Cen	
Pyrenula nitida	A lichen	Cen	
Ramonia chrysophaea	A lichen	Cen	
Ramonia dictyospora	A lichen	Cen	
Rinodina isidioides	A lichen	Cen	
Schismatomma graphidioides	A lichen†	Cen	
Stereocaulon delisei	A lichen	Cen	
Stereocaulon symphycheilum	A lichen	Cen	
Sticta canariensis	A lichen	Pysg-gen glas	
Strangospora microhaema	A lichen**Ψ**	Cen	
Strigula stigmatella var. stigmatella	A lichen	Cen	
Synalissa symphorea	A lichen	Cen	
Teloschistes flavicans	Golden hair-lichen	Cen eurwallt	
Toninia sedifolia	A lichen	Cen	
Usnea articulata	A lichen	Brig-far flodeuog	
Usnea florida	A lichen	Cen	
Wadeana dendrographa	A lichen	Cen	

Mosses and liverworts / Mwsoglau a Llysiau'r Afu (52 species and 1assemblage)			
Anoina rigida	Rigid Aloe-moss**Ψ**		**Added SG 15 H**
Anomodon longifolius	Long-leaved tail-moss†	Cynffon-fwsogl hirddail	
Barbilophozia kunzeana	Bog paw-wort	Pawen-fwsogl y gors	
Bartramia stricta	Rigid apple-moss	Afal-fwsogl anystwyth	
Bryum calophyllum	Matted bryum	Edeufwsogl cedennog	
Bryum gemmiparum	Welsh thread-moss	Edeufwsogl Cymreig	
Bryum intermedium	Many seasoned Thread-moss**Ψ**		**Added SG 15 H**
Bryum knowltonii	Knowlton's thread-moss	Edeufwsogl Knowlton	
Bryum marratii	Baltic bryum	Edeufwsogl y Baltig	
Bryum muehlenbeckii	Muehlenbeck's Threadmoss**Ψ**		**Added SG 15 H**
Bryum warneum	Sea bryum†	Edeufwsogl arfor	
Buxbaumia aphylla	Brown Shield-moss**Ψ**		**Added SG 15 H**
Cephaloziella calyculata	Entire threadwort	Llysiau'r afu edafeddog cyfan	
Cephaloziella nicholsonii	Greater copperwort†	Llysiau'r afu mawr y copr	
Cephaloziella massalongii	Lesser Copperwort**Ψ**		**Added SG 15 H**
Daltonia splachnoides	Irish Daltonia		**Added SG 13 G**
Dendrocryphaea lamyana (=*Cryphaea lamyana*)	Multi-fruited river moss†	Mwsogl afon aml-ffrwythog	**Taxonomic revision SG 13 G²**
Dicranodontium asperulum	Orange Bow-moss**Ψ**		**Added SG 15 H**
Dicranum undulatum (=*Dicranum bergeri*)	Waved Fork-moss	Crafancfwsogl tonnog	**Taxonomic revision SG 13 G²**
Didymodon tomaculosus	Sausage beard-moss	Mwsogl barfog cnapiau hirion	
Ditrichum plumbicola	Lead-moss†	Mwsogl plwm	
Ditrichum subulatum	Awl-leaved ditrichum	Crafancfwsogl y mynawyd	
Entosthodon pulchellus (=*Funaria pulchella*)	Pretty cord-moss	Rheffynfwsogl hardd	**Taxonomic revision SG 13 G²**
Fissidens curvatus	Portuguese pocket-moss	Pocedfwsogl Portiwgal	
Fossombronia fimbriata	Fragile Frillwort**Ψ**		**Added SG 15 H**
Fossombronia foveolata	Pitted frillwort	Crychfwsogl tyllog	
Grimmia arenaria	Nodding Donn's Grimmia**Ψ**		**Added SG 15 H**
Habrodon perpusillus	Lesser squirrel-tail moss	Mwsogl cynffon gwiwer fechan	
Leiocolea fitzgeraldiae	Fitzgerald's Notchwort**Ψ**		**Added SG 15 H**
Leptodon smithii	Prince of Wales feather-moss**Ψ**	Mwsogl (pluenfwsogl Smith)	
Meesia uliginosa	Broadnerved Hump-moss**Ψ**		**Added SG 15 H**
Micromitrium tenerum	Milimetre Moss		**Added SG 13 G**
Oceanic Ravine Assemblage	A Bryophyte Assemblage**Ψ**	**See Annex 1**	**Added SG 15 H**
Orthotrichum obtusifolium	Blunt leaved Bristle-moss		**Added SG 13 G**
Orthotrichum pumilum	Dwarf Bristle-moss		**Added SG 15 H**
Pallavicinia lyellii	Veilwort†	Llysiau'r afu gwylaeth y gors	
Paraleptodontium recurvifolium	Drooping leaved Beard-moss**Ψ**		**Added SG 15 H**
Petalophyllum ralfsii	Petalwort†	Llysiau'r afu petalaidd	
Pseudocalliergon lycopodioides	Large Hookmoss**Ψ**		**Added SG 15 H**
Radula voluta	Pale Scalewort**Ψ**		**Added SG 15 H**

Riccia canaliculata	Channelled crystalwort	Llysiau'r afu llabedog rhychog	
Riccia nigrella	Black crystalwort	Llysiau'r afu llabedog du	
Scopelophila cataractae	Tongue-leafed copper-moss	Mwsogl copr dail tafod	
Seligeria oelandica	Irish Rock-bristle		**Added SG 13 G**
Sematophyllum demissum	Prostrate Signal-moss†Ψ		**Added SG 15 H**
Sphagnum balticum	Baltic Bog-moss†		**Added SG 13 G**
Tomentypnum nitens	Woolly Feather-mossΨ		**Added SG 15 H**
Tortula canescens	Dog Screw-mossΨ		**Added SG 15 H**
Tortula cuneifolia	Wedge-leaved screw-moss	Mwsogl troellog dail lletem	
Tortula wilsonii	Wilson's pottia	Mwsogl troellog Wilson	
Weissia levieri	Levier's beardless-moss	Mwsogl minfoel Levier	
Weissia multicapsularis	Many-fruited Beardless-moss†		**Added SG 13 G**
Weissia squarrosa	Spreading-leaved beardless-moss	Mwsogl minfoel dail atblyg	

Fungi / Ffyngau (27 species / rhywogaeth)			
Amanita friabilis	Fragile amanita	Amanita brau	
Armillaria ectypa	Agaric marsh honey fungus†	Agarig (ffwng mêl y gors)	
Chrysomyxa pirolata	Wintergreen rust	Rhwd glesyn y gaeaf	
Clavaria zollingeri	A fairy club/violet coral†Ψ	Ffwng cwrel dulas	
Cotylidia pannosa	Woolly rosette	Roset manflewog	
Entoloma bloxamii	Big blue pinkgill	Tagell binc las fawr	
Geastrum elegans	Elegant earthstar	Seren ddaear gain	
Geoglossum atropurpureum	Dark-purple earthtongue	Tafod daear dulas	
Hericium erinaceus	Bearded tooth fungus†	Ffwng draenog pigau hirion	
Hohenbuehelia culmicola	Marram oyster	Madarch y moresg	
Hydnellum concrescens	A tooth fungus zoned tooth†	Ffwng draenog	
Hydnellum scrobiculatum	A tooth fungus ridged tooth†	Ffwng draenog	
Hydnellum spongiosipes	Velvet tooth†	Ffwng draenog melfedaidd	
Hygrocybe spadicea	Date-coloured waxcap date waxcap†	Cap cwyrog melynddu	
Hypocreopsis lichenoides	Willow gloves	Menig llwyfain	
Hypocreopsis rhododendri			**Added SG 13 G**
Microglossum olivaceum	Olive earthtongue†	Tafod daear bach melynwyrdd	
Phellodon confluens	A tooth fungus (fused tooth)	Ffwng draenog	
Phellodon melaleucus	A tooth fungus (grey tooth)	Ffwng draenog	
Phellodon tomentosus	A tooth fungus Woolly tooth	Ffwng draenog	
Phylloporus pelletieri	Golden gilled bolete	Boled tagellau aur	
Piptoporus quercinus	Oak polypore	Ysgwydd y derw	
Poronia punctata	Nail fungus†	Ffwng tail ceffyl mannog	
Puccinia scorzonerae	Scorzonera rust	Cawod barf yr afr	
Tremellodendropsis tuberosa	Ashen coral	Cwrel lludlwyd	
Tulostoma melanocyclum	Scaly stalkball	Twlostoma coes gennog	
Urocystis colchici	Colchicum smut	Penddu saffrwm	

Stoneworts / Rhawn yr ebol (5 rhywogaeth/species)			
Chara baltica	Baltic stonewort	Rhawn-yr-ebol y Baltig	
Chara curta	Lesser bearded stonewort†Ψ	Rhawn-yr-ebol barfog	
Nitella gracilis	Slender stonewort†	Rhawn-yr-ebol main	
Nitella tenuissima	Dwarf stonewort†	Rhawn-yr-ebol bach	
Nitellopsis obtusa	Starry stonewort	Rhawn-yr-ebol serennog	
Marine/Morol (55 rhywogaeth/species)			
Alkmaria romijni	Tentacled lagoon wormΨ	Llyngyren dentaclog	
Ammodytes marinus	Sand-eel	Llymrïen	
Anotrichium barbatum	Bearded red seaweed†	Gwymon coch barfog	
Arctica islandica	Icelandic cyprine or Ocean quahogΨ	Cocosen fawr	
Atrina fragilis	Fan mussel†	Cragen adain	
Balaenoptera acutorostrata	Minke whale†	Morfil pigfain	
Balaenoptera physalus	Fin whale†	Morfil asgellog llwyd	
Caretta caretta	Loggerhead turtle†	Crwban môr pendew	
Cetorhinus maximus	Basking shark†	Heulgi	
Clupea harengus	Herring†	Pennog	
Cruoria cruoriaeformis	A red seaweed	Gwymon coch	
Delphinus delphis	Common dolphin†	Dolffin cyffredin	
Dermochelys coriacea	Leatherback turtle†	Crwban môr cefn-lledr	
Dermocorynus montagnei	A red seaweed	Gwymon coch	
Dipturus batis	Common skate†	Morgath	
Edwardsia timida	Burrowing anemone	Anenome dyllu	
Eunicella verrucosa	Pink sea-fan†	Môr-wyntyll binc	
Gadus morhua	Cod†	Penfras	
Galeorhinus galeus	Tope shark	Ci glas	
Globicephala melas	Long-finned pilot whale†	Morfil pengrwn	
Grampus griseus	Risso's dolphin†	Dolffin Risso	
Haliclystus auricula	A stalked jellyfish	Slefren goesynnog	
Hippocampus guttulatus	Long snouted seahorse	Morfarch myngog	
Hyperodon ampullatus	Northern bottlenose whale†	Morfil trwyn potel	
Lagenorhynchus acutus	Atlantic white-sided dolphin†	Dolffin ystlyswyn	
Lagenorhynchus albirostris	White-beaked dolphin†	Dolffin pigwyn	
Lamna nasus	Porbeagle shark	Corgi môr	
Lithothamnion corallinoides	Coral maerl	Cramen goch gwrelaidd	
Lophius piscatorius	Sea monkfish†	Cythraul y môr	
Lucernariopsis campanulata	A stalked jellyfish	Sglefren fôr goesynnog	
Megaptera novaeangliae	Humpback whale†	Morfil cefngrwm	
Merlangius merlangus	Whiting†	Gwyniad môr	
Merluccius merluccius	European hake†	Cegddu	
Molva molva	Ling†	Honos	
Orcinus orca	Killer whale†	Lleiddiad, orca	
Ostrea edulis	Native oyster†	Wystrysen	
Padina pavonica	Peacock's tail	Gwymon cynffon paun	
Palinurus elephas	Crayfish, crawfish or spiny	Cimwch coch	

	lobster		
Phocoena phocoena	Harbour porpoise†	Llamhidydd	
Phymatolithon calcareum	Common maerl	Cramen goch	
Pleuronectes platessa	Plaice†	Lleden goch	
Prionace glauca	Blue shark	Morgi glas	
Raja brachyura	Blonde ray**Ψ**	Morgath felen	
Raja clavata	Thornback ray**Ψ**	Morgath styds	
Raja undulata	Undulate ray	Morgath donnog	
Rostroraja alba	White or Bottlenosed skate	Morgath wen	
Scomber scombrus	Mackerel†	Macrell	
Solea solea	Sole†	Lleden chwithig	
Squalus acanthias	Spiny dogfish	Ci pigog	
Squatina squatina	Angel shark	Maelgi	
Stenella coeruleoalba	Striped dolphin†	Dolffin rhesog	
Tenellia adspersa	Lagoon sea slug	Môr-wlithen y morlyn	
Trachurus trachurus	Horse mackerel†	Marchfacrell	
Tursiops truncatus	Bottlenose dolphin†	Dolffin trwyn potel	
Ziphius cavirostris	Cuvier`s beaked whale†	Morfil gylfinog Cuvier	

NB: At present we have standard Welsh names for vertebrates, flowering plants, ferns and conifers. All other names are liable to change as a result of current and ongoing work on Welsh environmental terms and names.

References

[1] Stace, C.A. (2010). New Flora of the British Isles, Third Edition. Cambridge University Press, Cambridge.

[2] Hill, M.O., Blackstock, T.H., Long, D.G. & Rothero, G.P. (2008). A Checklist and Census Catalogue of British and Irish Bryophytes. British Bryological Society, Middlewich.

[3] Smith, C. W., Aptroot, A., Coppins, B. J., Fletcher, A., Gilbert, O. L., James, P. W., and Wolseley, P.A. (eds.). (2009). The Lichens of Great Britain and Ireland. The British Lichen Society, London.

Annex 1 Section 42 Communities and Assemblages

Lichens /Cen Communities

The Lobarion Community

The following provides some guidance on the identification of the Lobarion lichen community. For fuller details see James, P.W., Hawksworth, D.L., & Rose, F. (1977) *Lichen Communities in the British Isles* pages 322-327 in Seward, M.R.D. (Ed.) (1977) Lichen Ecology, Academic Press, London.

When well-developed this is a spectacular community that can include some of the largest foliose lichens. Unfortunately most of its constituent species are highly sensitive to suphur dioxide, acid rain and excessive ammonia levels and many examples of the Lobarion in Wales are now species poor.

The Lobarion is likely to be present on a tree or shrub or any rock face that supports the following:-

Any species of the genera:

Degelia	*Menegassia*	*Parmeliella* (except *Parmeliella parvula* – see below)
Fuscopannaria	*Nephroma*	*Psuedocyphellaria*
Heterodermia	*Pannaria*	*Sticta*
Lobaria		

Any of the following species (*=species individually listed in Section 42):

Agonimia octospora	*Leptogium brebissonii**	*Phyllopsora rosei*
*Collema fasciculare**	*Leptogium cochleatum**	*Porina coralloidea*
Collema furfuraceum	*Pachyphiale carneola*	*Porina hibernica**
*Gyalecta flotowii**	*Parmotrema crinitum*	*Punctelia reddenda*
Gomphillus calycioides	*Peltigera collina*	*Thelopsis rubella*
Leptogium burgessii		

Any three of the following species:

Acrocordia gemmata	*Leptogium lichenoides*	*Opegrapha sorediifera*
Arthonia vinosa	*Leptogium teretiusculum*	*Parmeliella parvula*
Catinaria atropurpurea	*Loxospora elatina*	*Peltigera horizontalis*
Dimerella lutea	*Mycobilimbia pilularis*	*Pertusaria hemisphaerica*
	Normandina pulchella	*Thelotrema lepadinum*

Mine site community (Metallophytes).

Once Wales probably supported a significant assemblage of lichens associated with natural outcrops of heavy metal-rich rock. Due to the destruction of these outcrops by our mining activities the survival of metallophyte lichens are now almost entirely dependant upon the conservation of old mine sites.

Two special types of lichens are almost completely confined to these sites in Wales:-

1. Obligate metallophytes. Those lichens that appear, in some way, to require heavy metals and only occur on heavy metal-rich substrates.

2. Faculative metallophytes. Those lichens which can tolerate heavy metals, but can be found elsewhere in sites, without such heavy metals. Most of these species are probably poor competitors but can survive extreme conditions. In Wales, they are mostly confined to metal-rich sites but also occur, for example, on exposed peat on the summit ridges of high mountains.

The following species fall into one or other of these two categories in Wales and any threatened site **supporting more than three of these species** should be subject to a detailed assessment:

Acarospora sinopica	*Rhizocarpon oederi*
Baeomyces placophyllus	*Sarcosagium campestre*
Belonia incarnata	*Steinia geophana*
Epilichen scabrosus	*Sterocaulon condensatum*
Gyalidea subscutellaris	*Sterocaulon dactylophyllum*
Lecanora epanora	*Stereocaulon delisei*
Lecanora gisleriana	*Stereocaulon glareosum*
Lecanora handelii	*Stereocaulon leucophaeopsis*
Lecanora subaurea	*Stereocaulon nanodes*
Placopsis lambii	*Sterocaulon pileatum*

Placynthiella hyporhoda	*Stereocaulon symphycheilium*
Polyblastia agraria	*Vezdaea spp.*
Psilolechia lepraria	
Rhizocarpon cinereovirens	
Rhizocarpon furfurosum	

Mosses and liverworts / Mwsoglau a Llysiau'r Afu

The Oceanic Ravine Assemblage of bryophytes is likely to be present if a site supports:-

Any one of the following species; *=species individually listed in Section 42
Aphanolejeunea microscopica
Campylopus setifolius
*Daltonia splachnoides**
Drepanolejeunea hamatifolia
Hageniella micans
Harpalejeunea molleri
Leptoscyphus cuneifolius
Metzgeria leptoneura
*Paraleptodontium recurvifolium**
Plagiochila exigua
Plagiochila heterophylla
*Radula volute**
*Sematophyllum demissum**

Three or more of the following species
Adelanthus decipiens
Andreaea megistospora
Dicranum scottianum
Fissidens polyphyllus
Jubula hutchinsiae
Lepidozia cupressina
Lepidozia pearsonii
Radula aquilegia
Five or more of the following species
Anastrepta orcadensis
Colura calyptrifolia
Douinia ovata
Heterocladium wulfsbergii
Hygrobiella laxifolia
Hygrohypnum eugyrium
Isothecium holtii
Marchesinia mackaii
Plagiochila bifaria
Plagiochila punctata
Platyhypnidium lusitanicum
Porella pinnata
Rhabdoweisia crenulata
Sphenolobopsis pearsonii

Eight or more of the following species
Bazzania trilobata
Fissidens bryoides var. *caespitans*

Hyocomium armoricum
Lejeunea lamacerina
Lejeunea patens
Lophocolea fragrans
Plagiochila spinulosa
Saccogyna viticulosa
Scapania gracilis
Solenostoma paroicum
Sphagnum quinquefarium

Species removed from the Section 42 list.

Lichens /Cen			
Arthothelium dictyosporum	A Lichen	Cen	**Removed SG13 G** – never recorded in Wales
Mosses and liverworts / Mwsoglau a Llysiau'r Afu			
Atrichum angustatum	Lesser smoothcap	Mwsogl penllyfn (*neu* penfoel) bychan	**Removed SG15 H** – presumed extinct
Fissidens serrulatus	Large Atlantic pocket- moss	Pocedfwsogl mawr yr Iwerydd	**Removed SG15 H** – presumed extinct
Grimmia elongata	Brown grimmia	Clustogfwsogl brown	**Removed SG15 H**- Conservation status change
Rhytidiadelphus subpinnatus	Scarce turf-moss	Mwsogl blewog prin	**Removed SG15 H**- Conservation status change

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Environment (Wales) Act 2016

Section 7 – list of the habitats of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales.

Note: This interim list, which is exactly the same as the previous list under Section 42 of the NERC Act, is under review in consultation with NRW.

Deddf yr Amgylchedd (Cymru) 2016

Adran 7 - rhestr o gynefinnoedd o'r pwysigrwydd pennaf at ddiben cynnal a gwella bioamrywiaeth mewn perthynas â Chymru.

Noder: Mae'r rhestr dros dro, sydd yn union yr un fath a'r rhestr flaenorol o dan Adran 42 o Ddeddf NERC, yn cael ei adolygu mewn ymgynghoriad â CNC.

Habitats	**Cynefin**	**Priority Habitats**	**Cynefin sy'n Flaenoriaeth**
Terrestrial, coastal & freshwater	**Daearol, arfordirol a dŵr croyw**		
Broadleaved, mixed and yew woodland	Coedwig lydanddail, gymysg ac ywen	Traditional orchards	Perllannau traddodiadol
		Wood pasture & parkland	Porfa goediog a pharcdir
		Upland oak woodland	Coedwig dderi yn yr ucheldir
		Lowland beech and yew woodland	Coedwig ffawydd ac ywen ar dir isel
		Upland mixed ash woodland	Coedwig ynn gymysg ar dir uchel
		Wet woodland	Coedwig wlyb
		Lowland mixed deciduous woodland	Coedwig gollddail gymysg ar dir isel
Boundary and linear features	Nodweddion llinellol a therfynau	Hedgerows	Gwrychoedd
Arable and horticultural	Tir âr a garddwriaethol	Arable field margins	Ymylon caeau ŷd
Improved grassland	Glaswelltir wedi ei wella	Coastal and floodplain grazing marsh	Tir pori corslyd ar forfa arfordirol a gorlifdir
Neutral grassland	Glaswelltir niwtral	Lowland meadows	Gweirgloddiau yr iseldir
Calcareous grassland	Glaswelltir calchaidd	Lowland calcareous grassland	Glaswelltir calchaidd yr iseldir
		Upland calcareous grassland	Glaswelltir calchaidd tir uchel

Acid grassland	Glaswelltir asidaidd	Lowland dry acid grassland	Glaswelltir asidaidd sych yr iseldir
Dwarf shrub heath	Gweundir o gorlwyni	Lowland heathland	Gweundir yr iseldir
		Upland heathland	Gweundir yr ucheldir
Fen, marsh and swamp	Ffen, cors a chors siglennaidd	Upland flushes, fens and swamps	Trylifiadau, ffeniau a chorsydd siglennaidd ar dir uchel
		Lowland fens	Ffeniau ar dir isel
		Purple moorgrass and rush pastures	Porfeydd brwyn a glaswellt y gweunydd
		Reedbeds	Gwelyau cyrs
Bogs	Corsydd	Lowland raised bog	Cyforgors ar dir isel
		Blanket bog	Gorgors
Montane Habitats	Cynefinoedd mynyddig	Mountain heaths and willow scrub	Gweundir a phrysgwydd helyg ar dir mynyddig
Rivers and Streams	Afonydd a nentydd	Rivers	Afonydd
Standing open waters and canals	Dŵr llonydd agored a chamlesi	Oligotrophic and dystrophic lakes	Llynoedd oligotroffig a dystroffig
		Ponds	Pyllau dŵr
		Mesotrophic lakes	Llynnoedd mesotroffig
		Eutrophic standing waters	Dyfroedd llonydd ewtroffig
		Aquifer-fed naturally fluctuating water bodies	Dyfroedd a gyflenwir gan ddyfrhaen, ac sy'n arddangos amrywiadau naturiol yn lefel y dŵr
Inland rock	Craig fewndirol	Inland rock outcrop and scree habitats	Cynefinoedd brigiadau craig a sgri mewndirol
		Calaminarian grasslands	Glaswelltiroedd Calaminaraidd
		Open mosaic habitats on previously developed land	Brithwaith o gynefinoedd agored ar dir a oedd cynt wedi ei ddatblygu
		Limestone pavement	Palmentydd calch
Supralittoral rock	Craig uwch-lanw	Maritime cliff and slopes	Clogwyni a llethrau arforol
Supralittoral sediment	Gwaddodion uwch-lanw	Coastal sand dunes	Twyni tywod arfordirol
		Coastal vegetated shingle	Gro arfordirol gyda llystyfiant
Marine	**Morol**		
Littoral Rock	Craig o fewn cylchfa'r llanw	Intertidal boulder communities	Cymunedau ar glogfeini yn y gylchfa rhyng-lanw
		Sabellaria alveolata reefs	Riffiau *Sabellaria alveolata*
		Estuarine rocky habitats	Cynefinoedd creigiog aberol
Littoral sediment	Gwaddodion o fewn cylchfa'r llanw	Coastal saltmarsh	Morfa heli
		Intertidal mudflats	Eangderau llaid yn y gylchfa rhyng-lanw
		Seagrass beds	Gwelyau o wellt-y-gamlas
		Sheltered muddy gravels	Graean lleidiog mewn man cysgodol
		Peat and clay exposures	Amlygiadau o fawn a chlai

Sublittoral rock	Craig is-lanw	Tidal swept channels	Sianelau sy'n cael eu 'sgubo gan y llanw
		Fragile sponge & anthozoan communities on subtidal rocky habitats	Cymunedau bregus o sbyngau ac anthosoaid ar gynefinoedd creigiog is-lanw
		Carbonate reefs	Riffiau carbonad
Sublittoral sediment	Gwaddodion is-lanw	Subtidal sands and gravels	Graean a thywod is-lanw
		Subtidal mixed muddy sediments	Gwaddodion lleidiog cymysg is-lanw
		Mud habitats in deep water	Cynefinoedd lleidiog mewn dŵr dwfn
		Musculus discors beds	Gwelyau o fisglod gwyrdd (*Musculus discors)*
		Blue mussel beds	Gwelyau o fisglod glas
		Horse mussel beds	Gwelyau o farchfisglod
		Maerl beds	Gwely maerl
		Saline lagoons	Lagwnau hallt

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