

TABLE 1: WALES CONSERVATION STRATEGY PRIORITY BUTTERFLIES

Common Name	Scientific Name	Ecological classification	1 km squares occupied in Wales (2005-2014)	Wales occupancy (% occupied 1km squares 2005-14)	Wales distribution trend (1990-2014) (* P<0.05; ** p<0.01; *** p<0.001)	Wales population trend (1990-2016) (* P<0.05; ** p<0.01; *** p<0.001)	GB Red List	W & C Act Schedule 5	UK BAP	Env Act (Wales) s7	EU Red List	EU Habitats Directive Annex	Cons. Habitats & Species Regs.	BC UK Threat Priority 1997	BC UK Threat Priority 2005	BC UK Threat Priority 2016	BC UK Conservation Priority 2016	Wales NAP 1998	Wales NAP 2008	Wales CS Threat Priority 2016-25	Wales CS Conservation Priority 2016-25
Grizzled Skipper	<i>Pyrgus malvae</i>	HS	55	0.26			VU		X	X				M	H	H	B	H	H	H	A
Pearl-bordered Fritillary	<i>Boloria euphrosyne</i>	HS	21	0.10			EN	P	X	X				H	H	H	A	H	H	H	A
High Brown Fritillary	<i>Argynnis adippe</i>	HS	5	0.02			CR	F	X	X				H	H	H	A	H	H	H	A
Marsh Fritillary	<i>Euphydryas aurinia</i>	HS	239	1.13	-43*	-75*	VU	F	X	X	VU	2		H	H	H	A	H	H	H	A
Large Heath	<i>Coenonympha tullia</i>	HS	56	0.26			VU	P	X	X	VU			M	H	H	B	H	H	H	B
Brown Hairstreak	<i>Thecla betulae</i>	HS	213	1.01			VU	P	X	X				M	H	M	C	H	H	H	B
Dingy Skipper	<i>Erynnis tages</i>	HS	336	1.59	3		VU		X	X				L	H	H	B	M	H	M	C
Wood White	<i>Leptidea sinapis</i>	HS	4	0.02			EN	P	X	X				M	H	H	A	M	H	M	C
Grayling	<i>Hipparchia semele</i>	HS	497	2.35	-58***	-68*	VU		X	X				L	H	H	B	L	H	M	C
Small Pearl-bordered Fritillary	<i>Boloria selene</i>	HS	602	2.84	-64***	-77**	NT		X	X				M	H	H	B	M	M	M	C
White-letter Hairstreak	<i>Satyrion w-album</i>	WCS	139	0.66			EN	P	X	X				M	H	H	C	M	M	M	C
Small Blue	<i>Cupido minimus</i>	HS	121	0.57	36		NT	P	X	X				M	H	M	C	H	H	M	C
Silver-studded Blue	<i>Plebejus argus</i>	HS	54	0.26	-43		VU	P	X	X				M	H	H	B	H	H	M	C
Brown Argus	<i>Aricia agestis</i>	WCS	142	0.67	-65***									L	L	L		L	M	L	
Silver-washed Fritillary	<i>Argynnis paphia</i>	HS	217	1.03	-59*									L	L	L		L		L	

Ecological classification: HS = Habitat Specialist; WCS = Wider Countryside Species.
Distribution and population trends: Red = meets criteria for High Priority status; Yellow = meets criteria for Medium Priority status. Note for some species timeline for calculating population trend is shorter than maximum 1990-2016.
GB Red List status: CR = Critically Endangered; EN = Endangered; VU = Vulnerable; NT = Near Threatened.
Wildlife and Countryside Act (1981) status: F = full protection; P = partial protection (sale only).
UK BAP and national legislative conservation status: X = listed; E? = probably extinct.
BC UK Threat Priority: H = High Priority; M = Medium Priority; L = Low Priority; R = Research.
BC UK Conservation Priority: A = Action urgent across UK range; B = Action necessary in parts of UK range; C = Action necessary in parts of UK range but less urgent.
National Action Plan (NAP) Priority: H = High Priority; M = Medium Priority; L = Low Priority.
Country Conservation Strategy (RCS) Threat Priority: H = High Priority; M = Medium Priority; L = Low Priority.
Country Conservation Strategy (RCS) Conservation Priority: A = Action urgent across country; B = Action necessary in parts of country; C = Action less urgent nationally but may be necessary in some landscapes/sites.

Explanation of proposed changes:
 Dingy Skipper: Short-term (2005-14) statistically significant BNM decline; UKBMS decline but non-significant; however under-recorded and reports of many colonisations.
 Wood White: Only ever occurs as overspill from Forest of Dean; very little breeding habitat in Wales.
 Grayling: Short-term statistically significant BNM decline; UKBMS decline but non-significant; coastal and brownfield habitats appear stable.
 Small Blue: Long-term (1976-2014) statistically significant BNM increase; most areas in positive management; appears stable.
 Silver-studded Blue: No trend data; most areas in positive management; appears stable.
 Brown Argus: Short-term (2005-14) BNM/UKBMS trends stable.

TABLE 2: WALES CONSERVATION STRATEGY PRIORITY MOTHS

Common Name	Scientific Name	ABH No.	B & F No.	W & C Schedule 5	UK BAP	Env Act (Wales) s7	EU Habitats Directive Annex Cons. Habitats & Species Regs.	BC Threat Priority 2016	BC Conservation Priority 2016	Wales NAP 1998	Wales NAP 2008	Wales CS Threat Priority 2016-25	Wales CS Conservation Priority 2016-25	Comment
	<i>Caryocolum blandulella</i>	35.136	835									H	A	
	<i>Coleophora serpylletorum</i>	37.056	542									H	A	
	<i>Anania funebris</i>	63.024	1381		X	X		H	B		H	H	A	
Narrow-bordered Bee Hawk-moth	<i>Hemaris tityus</i>	69.008	1982		X	X		H	B	M	H	H	A	
Chestnut-coloured Carpet	<i>Thera cognata</i>	70.078	1770							M	L	H	A	Determine vulnerability in both Wales localities
Drab Looper	<i>Minoa murinata</i>	70.117	1878		X	X		H	B	M	H	H	A	
Argent & Sable	<i>Rheumaptera hastata</i>	70.120	1787		X	X		H	A	M	H	H	A	
Portland Moth	<i>Actebia praecox</i>	73.308	2099							M		H	A	Only 1 site in Wales, declining
Welsh Clearwing	<i>Synanthedon scoliaeformis</i>	52.005	376			X		H	B	H	H	H	B	
Forester	<i>Adscita statices</i>	54.002	163		X	X		H	B		H	H	B	
Silvery Arches	<i>Polia hepatica</i>	73.260	2149							M		H	B	Only 1 site in Wales, has declined
Rosy Marsh Moth	<i>Coenophila subrosea</i>	73.364	2115							H	H	H	B	
	<i>Anacamptis temerella</i>	35.013	852									M	B	
	<i>Coleophora nutantella</i>	37.105	550									M	B	Formerly <i>C. silenella</i>
	<i>Chrysoclista lathamella</i>	39.006	902									M	B	
Horehound Plume	<i>Wheeleria spilodactylus</i>	45.035	1515									M	B	Gt & Lt Orme; old records need investigating
Scarce Hook-tip	<i>Sabra harpagula</i>	65.006	1650			X		H	B	H	H	M	B	
Silky Wave	<i>Idaea dilutaria</i>	70.005	1704		X	X		H	A	H	H	M	B	Population stable on Wales sites; should be UK B
Barred Tooth-striped	<i>Trichopteryx polycommata</i>	70.201	1880		X			H	B			M	B	Recent coloniser, more scope to expand
V-Moth	<i>Macaria wauaria</i>	70.215	1897								L	M	B	
Ringed Carpet	<i>Cleora cinctaria</i>	70.263	1939							M	M	M	B	Needs more April trapping at former sites
Small Chocolate-tip	<i>Clostera pigra</i>	71.028	2017							M	L	M	B	
Dew Moth	<i>Setina irrorella</i>	72.050	2036							M	L	M	B	
Ashworth's Rustic	<i>Xestia ashworthii</i>	73.362	2129		X	X		H	C	H	H	M	B	
	<i>Sterrhopterix fusca</i>	11.018	195									M	C	Only 1 site in Wales but not thought threatened
	<i>Dichomeris ustalella</i>	35.023	864									M	C	
	<i>Mirificarma lentiginosella</i>	35.092	793									M	C	
	<i>Coleophora genistae</i>	37.041	546									M	C	
Gregson's Plume	<i>Stenoptilia scabiodactylus</i>	45.014	n/a									M	C	
	<i>Gynnidomorpha permixtana</i>	49.107	928									M	C	
	<i>Ancylis tineana</i>	49.217	1124									M	C	Only 1 site in Wales but not thought threatened
Goat Moth	<i>Cossus cossus</i>	50.001	162		X	X		H	C	M	H	M	C	
Large Red-belted Clearwing	<i>Synanthedon culiciformis</i>	52.007	381							M	M	M	C	
Cistus Forester	<i>Adscita geryon</i>	54.003	164							M	M	M	C	
	<i>Salebriopsis albicilla</i>	62.008	1446								M	M	C	
Small Eggar	<i>Eriogaster lanestris</i>	66.005	1633									M	C	
Grass Eggar	<i>Lasiocampa trifolii</i>	66.006	1636							M		M	C	
Purple-bordered Gold	<i>Idaea muricata</i>	70.002	1698							M		M	C	
Weaver's Wave	<i>Idaea contiguarua</i>	70.014	1710			X		H	C	H	H	M	C	
Oblique Striped	<i>Phibalapteryx virgata</i>	70.039	1718							M		M	C	
Chalk Carpet	<i>Scotopteryx bipunctaria</i>	70.043	1731		X	X		H	C	M	H	M	C	
Dentated Pug	<i>Anticollix sparsata</i>	70.129	1863							M	M	M	C	
Barred Carpet	<i>Perizoma taeniata</i>	70.139	1801							M		M	C	
Lead-coloured Pug	<i>Eupithecia plumbeolata</i>	70.153	1814							M	M	M	C	
Marbled Pug	<i>Eupithecia irriguata</i>	70.170	1818							M	M	M	C	
Thyme Pug	<i>Eupithecia distinctaria</i>	70.172	1843							M	M	M	C	
Manchester Treble-bar	<i>Carsia sororiata</i>	70.191	1866							M	M	M	C	
Broom-tip	<i>Chesia rufata</i>	70.196	1865							M	M	M	C	
Great Oak Beauty	<i>Boarmia roboraria</i>	70.267	1943							M		M	C	Recent records from NE Gwent
Wormwood	<i>Cucullia absinthii</i>	73.050	2211							M		M	C	
Star-wort	<i>Cucullia asteris</i>	73.055	2217							M		M	C	
Sandhill Rustic	<i>Luperina nickerlii</i> ssp. <i>gueneei</i>	73.132	2354							H	H	M	C	
Northern Drab	<i>Orthosia opima</i>	73.248	2184							M		M	C	
Silurian	<i>Eriopygodes imbecilla</i>	73.306	2175			X		H	C	H	H	M	C	
Light Feathered Rustic	<i>Agrotis cinerea</i>	73.316	2084							M	M	M	C	
Plain Clay	<i>Eugnorisma depuncta</i>	73.366	2103							M	M	M	C	
	<i>Enteucha acetosae</i>	4.001	118									L		
	<i>Stigmella spinosissimae</i>	4.016	94									L		
Currant Shoot Borer	<i>Lampronia capitella</i>	9.001	133		X	X		H	B		H	L		Needs surveys to establish whether breeding in Wales
	<i>Bankesia conspurcatella</i>	11.007	182									L		
	<i>Acanthopsyche atra</i>	11.016	191									L		
	<i>Phyllonorycter sagitella</i>	15.088	366		X	X		H	B		H	L		Needs surveys to establish whether breeding in Wales
	<i>Monochroa tetragonella</i>	35.068	738									L		
	<i>Monochroa elongella</i>	35.069	743									L		
	<i>Eulamprotes immaculatella</i>	35.082	731a									L		
	<i>Coleophora ochrea</i>	37.060	531									L		
	<i>Acleris permutana</i>	49.081	1049									L		
	<i>Celypha rufana</i>	49.160	1065									L		
Mistletoe Marble	<i>Celypha woodiana</i>	49.165	1066		X			H	B		H	L		Needs surveys to establish whether breeding in Wales
Yellow-legged Clearwing	<i>Synanthedon vespiformis</i>	52.012	374							M	L	L		
	<i>Catoptria furcatellus</i>	63.101	1315									L		
Rosy Wave	<i>Scopula emutaria</i>	70.028	1691							M	L	L		
Ruddy Carpet	<i>Catarhoe rubidata</i>	70.057	1735							M	M	L		
Cloaked Carpet	<i>Euphyia biangulata</i>	70.064	1793							M	L	L		
Grey Mountain Carpet	<i>Entephria caesiata</i>	70.072	1744								L	L		
Spinach	<i>Eulithis mellinata</i>	70.092	1757								L	L		
Bilberry Pug	<i>Pasiphila debiliata</i>	70.145	1861							M		L		
Pauper Pug	<i>Eupithecia egenaria</i>	70.164	1824							M	M	L		
Bleached Pug	<i>Eupithecia expallidata</i>	70.180	1833							M		L		
Little Thorn	<i>Cepphis advenaria</i>	70.221	1901							M		L		
Grass Wave	<i>Perconia strigillaria</i>	70.295	1970							M		L		
Cream-spot Tiger	<i>Arctia villica</i>	72.027	2058									L		
Hoary Footman	<i>Eilema caniola</i>	72.047	2045							M	L	L		
White-line Snout	<i>Schrankia taenialis</i>	72.062	2482								M	L		
Scarce Burnished Brass	<i>Diachrysis chryson</i>	73.011	2435							M	L	L		

FIGURE 1: WALES CONSERVATION STRATEGY PRIORITY LANDSCAPES AND SITES MAP

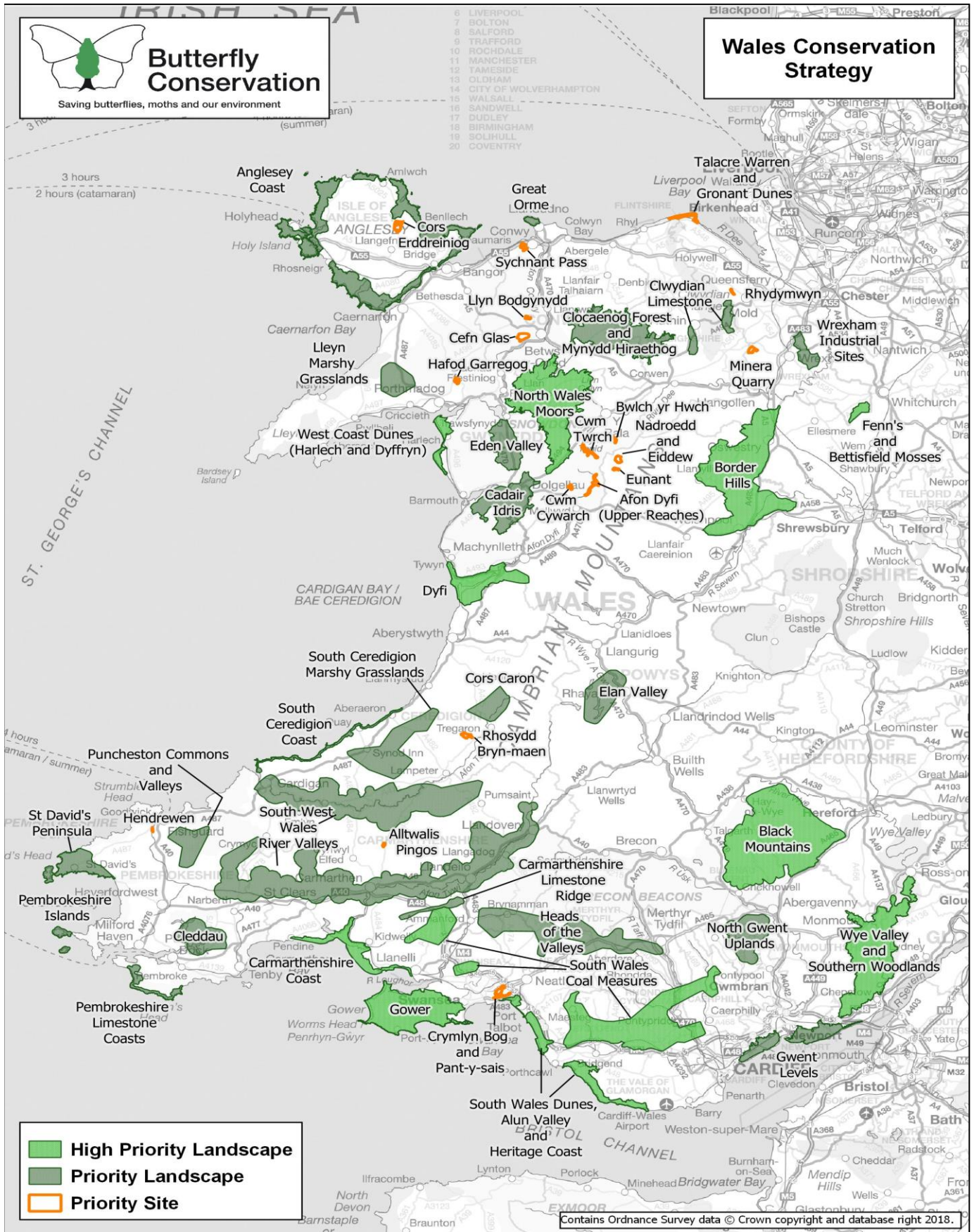


TABLE 4: WALES CONSERVATION STRATEGY PRIORITY SITES

Branch	South Wales				North Wales															
Site Number	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101		
Landscape Name	Crymlyn Bog and Pant-y-sais	Hendrewen	Alltwalis Pingos	Rhosydd Bryn-maen	Hafod Garregog	Talacre Warren and Gronant Dunes	Sychnant Pass	Cors Erddreiniog	Llyn Bodgynydd	Cefn Glas	Nadroedd and Eiddeu	Eunant	Afon Dyfi (Upper Reaches)	Cwm Cywarch	Bwlch yr Hwch	Cwm Twrch	Rhydymwyn	Minera Quarry		
High Priority Butterflies (Conservation Priority A)																				
Marsh Fritillary		H	H	H				H												
High Priority Butterflies (Conservation Priority B)																				
Large Heath										H										
Medium Priority Butterflies																				
Dingy Skipper						M											M	M		
Grayling						M	M											M		
Small Pearl-bordered Fritillary				M	M					M	M							M		
Silver-studded Blue					M															
High Priority Moths (Conservation Priority A)																				
<i>Anania funebris</i>									H											
Narrow-bordered Bee Hawk-moth								H												
High Priority Moths (Conservation Priority B)																				
Welsh Clearwing					H						H	H	H	H	H	H				
Medium Priority Moths (Conservation Priority B)																				
Ashworth's Rustic					M		M		M		M									
Medium Priority Moths (Conservation Priority C)																				
Goat Moth	M																			
Weaver's Wave							M													
Oblique Striped	M																			
Dentated Pug	M																			
Barred Carpet							M													
Sandhill Rustic						M														

Total High Priority Butterflies	0	1	1	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0
Total Medium Priority Butterflies	0	0	0	1	2	2	1	0	0	1	1	0	0	0	0	0	0	1
Total High Priority Moths	0	0	0	0	1	0	0	1	1	0	1	1	1	1	1	1		0
Total Medium Priority Moths	3	0	0	0	1	1	3	0	1	0	1	0	0	0	0	0	0	0
Total Priority Species	3	1	1	2	4	3	4	2	2	2	3	1	1	1	1	1		1

Key to species status
E Extinct
R Re/introduced
? Status uncertain

Key to conservation delivery progress
Unknown
No conservation delivery: e.g. occasional recording and/or monitoring of target species.
Limited conservation delivery: e.g. co-ordinated monitoring enabling assessment of target species abundance trends; some management advice provided; some recovery management implemented.
Full conservation delivery: e.g. co-ordinated monitoring enabling assessment of target species abundance trends and effectiveness of conservation action; regular management advice provided; co-ordinated programme of recovery management implemented; long-term sustainable management (e.g. agri-environment schemes) implemented.

TABLE 5: WALES CONSERVATION STRATEGY PRIORITY ACTIONS

Common Name	Wales CS Threat Priority 2016-25	Wales CS Conservation Priority 2016-25	Wales CS Species Recovery Curve Stage 2016	Survey	Monitoring	Research	Bespoke Management	Mosaic Management	Staff led	Input from staff	Volunteer led	Comment
High and Medium Priority Butterflies												
Grizzled Skipper	H	A	3/4			X		X				Trial management: brownfields
Pearl-bordered Fritillary	H	A	4			X	X					Research autecology: climate change/nitrogen deposition; trial management: Bracken
High Brown Fritillary	H	A	4			X	X					Research autecology: climate change/nitrogen deposition; trial management: Bracken
Marsh Fritillary	H	A	4				X					
Large Heath	H	B	3					X				
Brown Hairstreak	H	B	4				X	X				
Dingy Skipper	M	C	3/4			X		X				Trial management: brownfields, woodland
Wood White	M	C	4				X					
Grayling	M	C	3			X	X	X				Research autecology: climate change; trial management: brownfield
Small Pearl-bordered Fritillary	M	C	4			X	X	X				Research autecology: climate change; mosaic management in part of range
White-letter Hairstreak	M	C	3	X	X	X		X				Data deficient
Small Blue	M	C	4					X				Trial management: dune grasslands
Silver-studded Blue	M	C	4				X	X				
High and Medium Priority Moths												
<i>Caryocolum blandulella</i>	H	A	1	X							V	Volunteer surveys in recent years
<i>Coleophora serpylletorum</i>	H	A	1	X							V	Volunteer surveys in recent years
<i>Anania funebris</i>	H	A	4	X	X		X	X		S		On-going survey effort; attempts at monitoring; liaison with site owners
Narrow-bordered Bee Hawk-moth	H	A	4	X	X		X	X	S			Needs repeat surveys
Chestnut-coloured Carpet	H	A	2	X								
Drab Looper	H	A	4	X	X		X	X	S	S	V	Focus of staff and volunteer effort in SE Wales
Argent & Sable	H	A	3/4	X	X		X	X		S	V	On-going survey effort by staff and volunteers
Portland Moth	H	A	1	X	X	X					V	Limited volunteer effort
Welsh Clearwing	H	B	3	X	X	X	X	X	S	S	V	On-going survey effort by staff and volunteers; advice provided for road scheme and on some sites
Forester	H	B	2	X	X	X		X		S	V	On-going survey effort largely by volunteers; recent MSc projects
Silvery Arches	H	B	1	X				X				
Rosy Marsh Moth	H	B	2		X				S	S	V	Recent larval survey work
<i>Anacamptis temerella</i>	M	B	1	X								
<i>Coleophora nutantella</i>	M	B	1	X								
<i>Chrysoclista lathamella</i>	M	B	1	X								
<i>Wheeleria spilodactylus</i>	M	B	1	X								
Scarce Hook-tip	M	B	3	X				X				
Silky Wave	M	B	4	X			X	X				
Barred Tooth-striped	M	B	3	X	X	X		X				
V-Moth	M	B	1	X								
Ringed Carpet	M	B	1	X								
Small Chocolate-tip	M	B	1	X								
Dew Moth	M	B	2	X	X	X						
Ashworth's Rustic	M	B	2	X	X			X				
<i>Sterrhopterix fusca</i>	M	C	1		X							
<i>Dichomeris ustalella</i>	M	C	2	X				X				
<i>Ancylis tineana</i>	M	C	2	X				X				
Goat Moth	M	C	2	X				X				
Large Red-belted Clearwing	M	C	1	X								
Cistus Forester	M	C	1	X								
<i>Salebriopsis albicilla</i>	M	C	1	X				X				
Grass Eggar	M	C	1	X								
Purple-bordered Gold	M	C	1	X								
Weaver's Wave	M	C	1	X								
Oblique Striped	M	C	1	X								
Chalk Carpet	M	C	2	X	X	X		X				
Dentated Pug	M	C	2	X								
Barred Carpet	M	C	1	X								
Lead-coloured Pug	M	C	2	X								
Marbled Pug	M	C	1	X								
Thyme Pug	M	C	1	X								
Manchester Treble-bar	M	C	1	X								
Broom-tip	M	C	1	X								
Wormwood	M	C	1	X								
Star-wort	M	C	1	X								
Sandhill Rustic	M	C	1	X								
Northern Drab	M	C	1	X								
Silurian	M	C	2	X								
Light Feathered Rustic	M	C	1	X								
Plain Clay	M	C	1	X								

Species Recovery Curve Stages: 1 Status assessment; 2 Diagnosis; 3 Solution testing; 4 Recovery management; 5 Sustainable management.

Survey: Improved surveying requiring to assess range and distribution trends.

Monitoring: Improved monitoring required to assess population trends.

Research: To improve autecological knowledge, identify causes of decline and assess potential habitat management solutions.

Bespoke management: Habitat management tailored to meet specific ecological requirements of the target species.

Mosaic management: Generic or best practice habitat management which integrates the ecological requirements of a suite of species.