Report under The Conservation of Habitats and Species Regulations 2017 (as amended), Regulation 9A

2019-2024

Conservation status assessment for the habitat:

H6210 - Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*)

Wales

Cyfoeth Naturiol Cymru
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JNCC

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Important note - Please read

- The information in this document represents Wales Report under The Conservation of Habitats and Species Regulations 2017 (as amended), Regulation 9A, for the period 2019-2024.
- It is based on supporting information provided by Natural Resources Wales, which is documented separately.
- The Habitats Regulations reporting 2019-2024 Approach Document provides details on how this supporting information contributed to the UK Report and the fields that were completed for each parameter.
- Maps showing the distribution and range of the habitat are included.
- Explanatory notes (where provided) are included at the end. These provide additional audit trail information to that included within the assessments. Further underpinning explanatory notes are available in the related country reports.
- Some of the reporting fields have been left blank because either: (i) there was insufficient information to complete the field; (ii) completion of the field was not obligatory; and/or (iii) the field was not relevant to this habitat (section 11 National Site Network coverage for Annex I habitats).

Further details on the approach to the Habitats Regulations Reporting 2019-2024 are available on the JNCC website.

Assessment Summary: Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*)

Distribution Map

Range Map

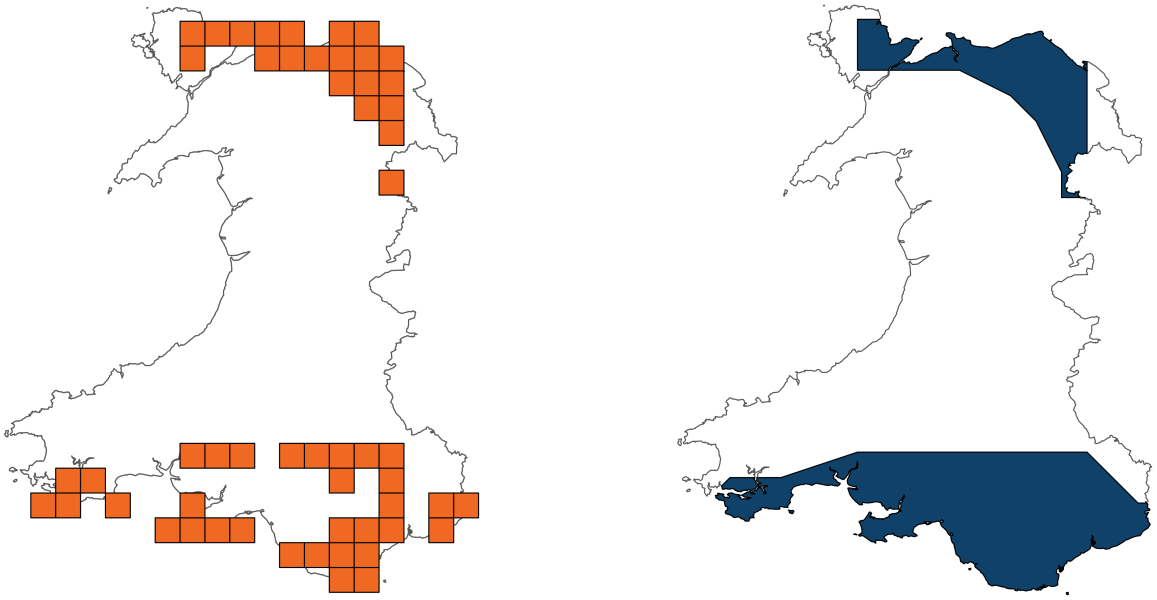

Figure 1: Wales distribution and range map for H6210 - Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*). Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority. The 10km grid square distribution map is based on available habitat records within the current reporting period.

Table 1: Table summarising the conservation status for H6210 - Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*). Overall conservation status for habitat is based on assessments of range, area covered by habitat, structure and functions, and future prospects.

Overall Conservation Status (see section 10)

Unfavourable-bad (U2)

Breakdown of Overall Conservation Status

Range (see section 4)	**Favourable (FV)**
Area covered by habitat (see section 5)	**Unfavourable-bad (U2)**
Structure and functions (see section 6)	**Unfavourable-bad (U2)**
Future prospects (see section 9)	**Unfavourable-bad (U2)**

List of Sections

National Level

1. General information

1.1 Country	Wales
1.2 Habitat code	H6210 - Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*)

2. Maps

2.1 Year or period	1987-2024
2.2 Distribution map	Yes
2.3 Distribution map; Method used	Complete survey or a statistically robust estimate

2.4 Additional information

No additional information

Biogeographical Level

3. Biogeographical and marine regions

3.1 Biogeographical or marine region where the habitat occurs ATL

3.2 Sources of information

See section 13 References

4. Range

4.1 Surface area (km²)	6,676.9
4.2 Short-term trend; Period	2013-2024
4.3 Short-term trend; Direction	Stable

4.4 Short-term trend; Magnitude	
a) Estimated minimum	
b) Estimated maximum	
c) Pre-defined range	
d) Unknown	
e) Type of estimate	
f) Rate of decrease	
4.5 Short-term trend; Method used	Complete survey or a statistically robust estimate
4.6 Long-term trend; Period	
4.7 Long-term trend; Direction	
4.8 Long-term trend; Magnitude	
a) Minimum	
b) Maximum	
c) Rate of decrease	
4.9 Long-term trend; Method used	

4.10 Favourable Reference Range (FRR)

a) Area (km²)	
b) Pre-defined increment	Current range is less than 2% smaller than the FRR
c) Unknown	No
d) Method used	Reference-based approach
e) Quality of information	moderate

4.11 Change and reason for change in surface area of range

a) Change	Yes

b) Genuine change	No
c) Improved knowledge or more accurate data	Yes
d) Different method	No
e) No information	No
f) Other reason	No
g) Main reason	Improved knowledge/more accurate data

4.12 Additional information

No additional information

5. Area covered by habitat

5.1 Year or period	1979-2024
5.2 Surface area (km²)	
a) Minimum	
b) Maximum	
c) Best single value	9.0709
5.3 Type of estimate	Best estimate
5.4 Surface area; Method used	Complete survey or a statistically robust estimate
5.5 Short-term trend; Period	2007-2024
5.6 Short-term trend; Direction	Decreasing
5.7 Short-term trend; Magnitude	
a) Estimated minimum	
b) Estimated maximum	
c) Pre-defined range	
d) Unknown	Yes
e) Type of estimate	
f) Rate of decrease	Decreasing <=1% (one percent or less) per year on average

5.8 Short-term trend; Method used	Based mainly on extrapolation from a limited amount of data
5.9 Long-term trend; Period	2000-2024
5.10 Long-term trend; Direction	Decreasing
5.11 Long-term trend; Magnitude	
a) Minimum	
b) Maximum	
c) Confidence interval	
d) Rate of decrease	
5.12 Long-term trend; Method used	Based mainly on extrapolation from a limited amount of data
5.13 Favourable Reference Area (FRA)	
a) Area (km²)	
b) Pre-defined increment	Current area is between 11% and 25% smaller than the FRA
c) Unknown	No
d) Method used	Expert opinion
e) Quality of information	

5.14 Change and reason for change in surface area of range

a) Change	Yes
b) Genuine change	Yes
c) Improved knowledge or more accurate data	Yes
d) Different method	No
e) No information	No
f) Other reason	No

g) Main reason	Improved knowledge/more accurate data

5.15 Additional information

No additional information

6. Structure and functions

6.1 Condition of habitat (km²)

Area in good condition

ai) Minimum	0
aii) Maximum	0

Area not in good condition

bi) Minimum	2.383
bii) Maximum	2.383

Area where condition is unknown

ci) Minimum	4.747
cii) Maximum	4.747

6.2 Condition of habitat; Method used	Based mainly on extrapolation from a limited amount of data
6.3 Short-term trend of habitat area in good condition; Period	2012-2024
6.4 Short-term trend of habitat area in good condition; Direction	Decreasing
6.5 Short-term trend of habitat area in good condition; Method used	Based mainly on extrapolation from a limited amount of data

6.6 Typical species

Has the list of typical species changed in comparison to the previous reporting period?	No

6.7 Typical species; Method used

6.8 Additional information

Typical species were not used directly in the assessment of conservation status for habitat structure and function as a comprehensive list of typical species for each habitat was not available. However, the status of typical species was considered when the condition of individual sites was assessed using Common Standards Monitoring Guidance. Common Standards Monitoring (CSM) data was used to assess the area of habitat in 'good' and 'not good' condition (field 6.1). Species were a component of the attributes assessed under CSM. Therefore, an assessment of species is considered to have formed part of the reporting under field 6.1 which supported the Habitats Structure and Function assessment (field 10.3).

7. Main pressures

7.1 Characterisation of pressures

Table 2: Pressures affecting the habitat, including timing and importance/impact ranking. Pressures are defined as factors acting currently and/or during the reporting period (2019–2024). Rankings are: High (direct/immediate influence and/or large spatial extent) and Medium (moderate direct/immediate influence, mainly indirect and/or regional extent).

Pressure	Timing	Ranking
PA02: Conversion from one type of agricultural land use to another (excluding drainage and burning)	Ongoing and likely to be in the future	Medium (M)
PA05: Abandonment of management/use of grasslands and other agricultural and agroforestry systems (e.g. cessation of grazing, mowing or traditional farming)	Ongoing and likely to be in the future	High (H)
PA07: Intensive grazing or overgrazing by livestock	Ongoing and likely to be in the future	Medium (M)
PA08: Extensive grazing or undergrazing by livestock	Ongoing and likely to be in the future	High (H)
PA13: Application of natural or synthetic fertilisers on agricultural land	Ongoing and likely to be in the future	High (H)
PB01: Conversion to forest from other land uses, or afforestation (excluding drainage)	Ongoing and likely to be in the future	Medium (M)
PC01: Extraction of minerals (e.g. rock, metal ores, gravel, sand, shell)	Ongoing and likely to be in the future	Medium (M)

PF01: Conversion from other land uses to built-up areas	Ongoing and likely to be in the future	Medium (M)
PF05: Sports, tourism and leisure activities	Ongoing and likely to be in the future	Medium (M)
PI02: Other invasive alien species (other than species of Union concern)	Ongoing and likely to be in the future	High (H)
PI03: Problematic native species	Ongoing and likely to be in the future	Medium (M)
PJ03: Changes in precipitation regimes due to climate change	Ongoing and likely to be in the future	Medium (M)
PA20: Live stock farming generating pollution	Ongoing and likely to be in the future	Medium (M)
PK04: Atmospheric N-deposition	Ongoing and likely to be in the future	High (H)

7.2 Sources of information

See section 13 References

7.3 Additional information

No additional information

8. Conservation measures

8.1: Status of measures

a) Are measures needed?	Yes
b) Indicate the status of measures	Measures identified and taken
8.2 Main purpose of the measures taken	Restore the structure and functions, including the status of typical species (related to ‘Specific structure and functions’)
8.3 Location of the measures taken	Both inside and outside National Site Network
8.4 Response to measures	Medium-term results (within the next two reporting periods, 2025–2036)

8.5 List of main conservation measures

Table 3: Key conservation measures addressing current pressures and/or anticipated threats during the next two reporting periods (2025–2036). Measures are ranked by importance/impact: High (direct/immediate influence and/or large spatial extent) and Medium (moderate direct/immediate influence, mainly indirect and/or regional extent).

Conservation measure	Ranking
MA01: Prevent conversion of natural and semi-natural habitats, and habitats of species into agricultural land	High (H)
MA09: Manage the use of natural and synthetic fertilisers as well as chemicals in agricultural for plant and animal production	High (H)
MA05: Adapt mowing, grazing and other equivalent agricultural activities (e.g. burning)	High (H)
MI03: Management, control or eradication of other invasive alien species	High (H)
MA04: Reinstate appropriate agricultural practices to address abandonment, including mowing, grazing, burning or equivalent measures	Medium (M)
MA03: Maintain existing extensive agricultural practices and agricultural landscape features	Medium (M)
MK01: Reduce impact of mixed source pollution	Medium (M)
MB01: Prevent conversion of (semi-) natural habitats into forests and of (semi-) natural forests into intensive forest plantation	Medium (M)
MI05: Management of problematic native species	High (H)

8.6 Additional information

Only part of the measures identified have been taken.

9. Future prospects

9.1a Future trends of parameters

ai) Range	Negative - decreasing <=1% (one percent or less) per year on average
bi) Area	Negative - decreasing <=1% (one percent or less) per year on average

ci) Structure and functions	Negative - slight/moderate deterioration

9.1b Future prospects of parameters

aii) Range	Poor
bii) Area	Bad
cii) Structure and functions	Bad

9.2 Additional information

No additional information

10. Conclusions

10.1 Range	Favourable (FV)
10.2 Area	Unfavourable-bad (U2)
10.3 Specific structure and functions (incl. typical species)	Unfavourable-bad (U2)
10.4 Future prospects	Unfavourable-bad (U2)
10.5 Overall assessment of Conservation Status	Unfavourable-bad (U2)
10.6 Overall trend in Conservation Status	Deteriorating

10.7 Change and reason for change in conservation status

This field is not reported as the period 2019-2024 marks the first instance in which conservation status has been assessed at the national level, meaning no comparisons to previous reports can be drawn.

10.7 Change and reason for change in conservation status trend

This field is not reported as the period 2019-2024 marks the first instance in which conservation status has been assessed at the national level, meaning no comparisons to previous reports can be drawn.

10.8 Additional information

No additional information

11. UK National Site Network (pSCIs, SCIs, SACs) coverage for Annex I habitat types

11.1 Surface area of the habitat type inside the pSCIs, SCIs and SACs network (km²)

a) Minimum	
b) Maximum	
c) Best single value	2.1536
11.2 Type of estimate	Best estimate
11.3 Habitat area inside the network; Method used	Complete survey or a statistically robust estimate
11.4 Short-term trend of habitat area within the network; Direction	Stable
11.5 Short-term trend of habitat area within the network; Method used	Based mainly on extrapolation from a limited amount of data
11.6 Short-term trend of habitat area in good condition within the network; Direction	Uncertain
11.7 Short-term trend of habitat area in good condition within the network; Method used	Based mainly on expert opinion with very limited data

11.8 Additional information

No additional information

12. Complementary information

12.1 Justification of percentage thresholds for trends

No justification information

12.2 Other relevant information

No other relevant information

13. References

Biogeographical and marine regions

3.2 Sources of information

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Wilkinson, K. 2014. Limestone Coast of South West Wales SAC UK (0014787). Feature code (6210): Semi-natural dry grasslands and scrubland facies: on calcareous substrates (Festuco-Brometalia). SAC Monitoring report.

Main pressures

7.2 Sources of information

No sources of information

14. Explanatory Notes

Field label	Note
2.3: Distribution map; Method used	The distribution (and extent) of H6210 has been calculated using several data sources, which are summarised below and listed on the 10km Habitat Data spreadsheet. A polygon-based GIS inventory for the habitat has been produced through pooling these data sources together (Rothwell & Smith 2025, updating that produced by Stevens & Smith 2012/2018). Data source 1 (MAIN DATA SOURCE): 'Phase 1' Habitat Survey of Wales (HSW) (Blackstock et al., 2010). This was a comprehensive field-by-field survey of the region; distribution data for this habitat come entirely from the lowland component of the survey, conducted between 1987 and 1997. Phase 1 codes (NCC, 1990) B3 (B.3.1 & B.3.2) calcareous grassland and D.7 dry heath/calcareous grassland mosaic were initially included where they overlie limestone bedrock as defined by British Geological Survey (2003). For D.7, the calcareous grassland area was calculated as 50% of each habitat patch (2 patches only). Further detail on the interpretation of H6210 in Wales can be found in NRW (2024a). Data source 2 (MAIN DATA SOURCE): Lowland Grassland Survey of Wales (LGSW) (Stevens et al., 2010). This was a targeted NVC (Rodwell (ed.), 1992) survey focussing on grasslands of high conservation interest in the Welsh lowlands. Survey work was conducted between 1987 and 2004. All occurrences of CG1-9 (except the maritime sub-community CG1f which falls under H1230) on limestone bedrock were included in the definition of H6210, along with a sub-set of CG10 occurrences on limestone (Mesobromion form) and calcareous fringe or 'saum' vegetation with no NVC affiliation (Rodwell et al., 1998). An amendment to the definition of the habitat agreed between JNCC and the UK country statutory conservation agencies

means that MG5b examples 'on limestone in association with CG1-10 and with calcicoles' were also included. For more details of interpretation of H6210 in Wales see NRW (2024a).

Data source 3: Amendments and updates to the LGSW database through resurveys and surveys of new sites 2008-2024 (LGSW database).

Data source 4: A single locality from the Lowland Peatland Survey of Wales (2008) (LPSW database).

Data source 5: Smith (2012) reassessed known 26 sites with the habitat using site visits and aerial photograph interpretation to detect whether any gross change had occurred.

Data source 6: Areas of the habitat from a survey of Stackpole, Pembrokeshire (Sutton, 2012).

Data source 7: SAC monitoring confirmed the continued presence and extent of the habitat within four sites during the 2013-18 reporting period (Creer, 2013a; Creer, 2013b; Creer & Green, 2013; Creer & Harrison, 2013; Wilkinson, 2014); two additional SACs were monitored in 2009 and 2012 (Creer & Harrison, 2009; Wilkinson, 2012).

Data source 8: One locality surveyed by the LGSW was relocated during a site visit in 2016, when a small reduction in extent since the original survey was recorded (Smith et al., in prep.).

Data source 9: Incidental record at one locality (pers. com. Richard May, 2017).

Data source 10: CG1 and CG2 from upland CG surveys in Bannau Brycheiniog (Gray, 2004; Gray, 2004; Drewett, 2007).

	Together these data give good coverage of the region, as there is comprehensive Phase 1 survey coverage and examples of NVC CG1-9 of at least 0.5 ha (on a single site) were specifically targeted for detailed survey by the LGSW, although smaller areas were not always included in this survey. However, most of the data are years (and in many cases decades) old and there are no recent data or information for the majority of localities.
4.3: Short-term trend; Direction	See 4.11
5.1: Year or period	The data used to produce the total area figure are considered to provide good coverage of the region. However, the data are predominantly from prior to 2007, the two main datasets being from 1987-1997 and 1989-2004. Post 2007 information includes a number of individual site surveys, revisits or interpretation of change using aerial photographs (Smith, 2012; Smith et al., in prep), and SAC monitoring at six sites. See 2.3 for details of datasets.
5.3: Type of estimate	The area value provided here is likely to be an over-estimate of the current extent, as there is good evidence of a loss of grassland habitat in general on unprotected sites since the main surveys between 1987 and 2004, as indicated by two site revisit assessments in 2004 (Stevens et al., 2010) and 2017 (Smith et al., in prep). In addition, small losses of H6210 have been detected by Smith (2012) and from occasional site resurveys (see 2.3), and from casual viewing of aerial photographs by the author. However, there is no information on recent area change for most non-statutory examples of the habitat. In providing the estimate, it is not thought that significant numbers of sites have been overlooked, given the complete coverage together provided by the Phase 1 HSW (Blackstock et al., 2010) and Phase 2 LGSW (Stevens et al., 2010) surveys, although examples of the habitat less than 0.5 ha (0.005 km2) in area were not specifically targeted by the LGSW and stands less than 0.1-0.25 ha

	(0.001-0.0025 km2) were not mapped by the HSW. However, some additional stands of the habitat located in the uplands of south-east Wales have been added to the inventory.
5.4: Surface area; Method used	See 2.3
5.8: Short-term trend; Method used	As reported in 2018, SAC monitoring covered six SACs within the 2007-2018 period, which together support 29% of the habitat in Wales; no changes in extent were noted during this monitoring , although extent change across the whole feature at these sites was generally not thoroughly assessed (Creer & Harrison, 2009; Wilkinson, 2012; Creer, 2013a; Creer, 2013b; Creer & Green, 2013; Creer & Harrison, 2013; Wilkinson, 2014). Regular SAC monitoring has ceased in NRW due to lack of resources, and no additional SAC monitoring for this feature has been undertaken since 2014. Monitoring was undertaken at 14 other (non-SAC) SSSIs during the 2007-24 period. At three of these extent had declined slightly in extent, while reduction in extent was more significant at one further site (as much as 2.5ha) (Rawlins, 2022). Smith et al. (in prep.) noted loss of a broader range of priority lowland grassland habitats at 48% of non-statutory sites (29 out of 61 sites, visited between 2008 and 2017, with an average 9.7 year between visits), and increase in habitat at only 8% of sites, strongly suggesting a recent trend in decline of unprotected lowland grassland habitats generally, although only a single lowland non-statutory site with H6210 was visited. There is no data on non-statutory sites from the 2018-2024 period.
5.11: Long-term trend; Magnitude	Rate of decrease unknown
5.12: Long-term trend; Method used	A long-term decrease in the area of the habitat outside statutory protected sites is suggested by three assessments of change at individual sites: 1) revisits to 96

	lowland grassland non-statutory sites in 2004 recorded significant decline at 25% of sites (over an average 8-year period) (Stevens et al., 2010); 2) Smith (2012) assessed 26 H6210 sites (20% of the habitat resource by area) and noted loss of the habitat at five sites with disproportionately more loss on non-statutory sites; 3) Smith et al. (in prep.) recorded loss of priority grassland at 48% of non-statutory sites (see 5.8). Statutory site monitoring results provide only a small sample set to evaluate change in extent on SSSIs/SACs. Loss of the habitat was detected at four out of fourteen sites monitored since 2007, mainly due to scrub expansion; loss was on a small scale at three of these sites but more significant on one, where loss of H6210 was recorded as being 'as much as 50%' of that previously recorded (c.2.5ha loss) (Rawlins 2022). Smith (2012), however, noted small increase in the habitat at three sites, as a result of improved site management.
5.14: Change and reason for change in surface area	The larger surface area (in 5.2) than in the previous reporting round is due to a change in definition of the habitat to include areas of mildly calcareous mesotrophic grassland (MG5b, see 2.3), along with use of improved survey information from the uplands of south-east Wales. Recorded actual change in area between reporting rounds is limited to small decreases at three SSSIs and more significant decrease at one site, by as much as 2.5ha (Rawlins, 2022), noted during site monitoring. However, there is no data from non-statutory sites and most SSSIs with the habitat.
6.2: Condition of habitat; Method used	A Baseline Assessment of features on statutory sites undertaken in 2020 provides the most up-to-date feature condition for SAC. Condition data for the SACs with H6210 is derived from assessments completed in the 2009-2017 period (Creer, J. & Harrison, T. 2009; Wilkinson, 2012; Creer, J. 2013a; Creer, J. 2013b; Creer, J. & Green, H. 2013; Creer, J. & Harrison, T. 2013; Wilkinson, K. 2014),

	with no additional SAC monitoring of the habitat since 2014. Each assessment was found to be in unfavourable condition. A total of 14 additional (non-SAC) SSSIs with calcareous grassland (considered to correspond with H6210) as a qualifying feature were monitored in the current reporting period, including five sites which received only a 'desk-based' assessment. Five of these were considered to be in unfavourable condition and the other nine recorded as unknown condition. There is very little information about habitat condition on non-statutory sites. A visit to one site in 2016 (Smith et al., in prep) noted decline in condition of the habitat (c.20 years since survey). Smith (2012) assessed condition of H6210 at five non-statutory sites, recording it as unfavourable at four sites and favourable at one. Condition is essentially unknown for almost all non-statutory sites and most SSSIs, meaning a lack of information for most of the habitat in Wales.
6.3: Short-term trend of habitat area in good condition; Period	The area of zero habitat recorded in 6.1 as being in good condition is the same as recorded in the last report. However, over 60% of the habitat remains of unknown condition.
6.5: Short-term trend of habitat area in good condition; Method used	All the available data point to continuing decrease in condition of the habitat. The six monitored SAC features have all been assessed as being in unfavourable condition across more than one monitoring round. There is a general lack of trend data for the H6210 resource on non-statutory sites, although the results of Smith (2012) and Smith et al. (in prep.) strongly suggest an overall decline in condition of lowland grassland habitats in general over the past 10 to 15 years (see 5.3).
7.1: Characterisation of pressures	Pressures: Data held in SAFLE, NRW's statutory sites actions

database (NRW, 2024b), which provides information on 'issues' affecting habitats and species within the protected sites series in Wales, were used to provide a basis for quantifying pressures relating to the habitat, following procedures outlined in NRW, 2018. The protected sites (SSSI and SAC) hold 61% of the H6210 Wales resource by area. Using this method the following are given a high ranking: PA08 (undergrazing), affecting 44% of management units, PI02 (Invasive non-native species), affecting 26% of units, and PA05 (abandonment of management), affected 8% of units. Using the same method, medium ranking is given to PA07 (over-grazing), PI03 (problematic native species – mainly bracken and gorse), PC01 (mineral extraction) and PF05 (leisure activities – mainly off-roading).

Information on a sample of non-statutory grassland sites is provided by Smith et al. (in prep.). They recorded cases of fertiliser application (PA13) at 5% of lowland grassland sites, and this is given a high ranking as it typically affects whole agricultural units or large areas and can be highly destructive. Smith et al. (in prep.) also recorded, more rarely, cases of conversion to intensive production (PA02) – this is given medium ranking.

Air pollution (N deposition) (PK04) is known to detrimentally affect the habitat (Stevens et al., 2004; Van Den Berg et al., 2011) and is assessed separately using the agreed approach and updated deposition data. Using a data overlay method in ARC GIS (2024), 83% of the habitat by area (polygon data) was recorded at or above the relevant Critical Load limit of 10kg N ha-1 yr-1.

PA20 is given a medium ranking to reflect the impact of ammonia emissions from agriculture (particularly intensive poultry units and dairy) on semi-natural grassland habitats.

Since the last reporting round, further evidence suggests a higher sensitivity of the habitat to drought and reduced

	precipitation regimes due to climate change (Basto et al, 2018, Trinder et al 2019 and Castillioni et al 2022), and this is therefore given a medium rather than low ranking. Also elevated to a medium ranking (from low) for H6210 in this reporting round are PB01 (afforestation) and PF01 (building development), in part due to Welsh Government targets and commitments to significantly increase tree cover and the housing stock in coming years. Three other categories are given low ranking through analysing data from SAFLE (NRW, 2024b): PD06 (cable laying); PH04 (arson) and PH08 (dumping of waste). Using a mixture of the results of Smith et al. (in prep.) and expert judgment, low ranking was also given to PA10 (supplementary stock feeding); PJ01 (temperature changes due to climate change; and PH01 (military operations: ongoing military activity is a pressure on one site in south-west Wales). All of the listed pressures are considered to be both ongoing and likely to continue to be pressures in the future. A few seem likely to increase in the near future, notably PB01 and PF01, as discussed above.
8.5: List of main conservation measures	Measures are neither identified nor taken for most of the habitat in Wales. Although 61% of H6210 by area is on SSSI, only 36% of SSSI management units have actions which are completed or underway. Only about 7% by area of the habitat in Wales was, until the scheme ended, covered by a relevant Glastir grassland option (2020-2023). 29% of H6210 total area is listed as a SAC feature. Thematic Action Plans have been produced for the SACs; these provide priorities for each theme. NRWs SAFLE statutory sites database (NRW, 2024b) lists 25 management units with H6210 as a feature with actions expected to have a positive impact in the next 12 years (those listed as Completed, Underway, Planned or Agreed in principle); 76% of these are listed as completed or

underway. The most common measure are: MI05, Management of problematic native species (mainly either gorse scrub or bracken control) (19 units), MA05 adapt grazing management (14 units) and MI03 control of invasive non-native (10 units). These are all give a high rating.

Two additional measures are given a high rating: MA01 (Prevent conversion of semi-natural habitats into agricultural land) and MA09 (Manage the use of natural and synthetic fertilisers). This recognises the role of statutory site protection, which has been shown to act as an effective mechanism in preventing conversion into agricultural land and preventing or limiting fertiliser and chemical usage (e.g. Stevens et al., 2010; Ridding et al. 2017). However, no sites with the habitat have been notified as new SSSIs since the previous reporting round.

Other actions listed in SAFLE include MA03 (maintain existing management) (3 units) and MA04 (reinstate appropriate agricultural practice to address abandonment) (2 units), which are both given medium ranking, as well as MF03 (reduce impact of leisure activities) (2 units), which given a low ranking as its effects are generally more localised.

There are various air quality strategies and initiatives in place to protect and enhance biodiversity (MK01). Air quality limit values set out in the Air Quality Strategy (AQS) are transposed into national legislation by the Air Quality Standards Regulations 2010. Nitrogen deposition continues to impact semi-natural habitats in Wales. These regulations are not habitat-specific, however with introduction of The Environment (Air Quality and Soundscapes) (Wales) Act 2024 in Wales, brings in new national targets for air quality pollutants, with the potential of directly influencing habitat protection.

This key legislative advancement requires mandatory

targets for fine particulate matter less than 2.5 micrometers in diameter ($PM_{2.5}$) to be established by February 2027, including new powers for Welsh Ministers to set pollutant-specific targets in future years (e.g., ammonia, nitrogen dioxide) linked to biodiversity outcomes, potentially enabling future habitat-sensitive thresholds.

Welsh Government have also introduced The Agriculture (Wales) Act in 2023. It aims to establish a framework of Sustainable Land Management (SLM) objectives to underpin agricultural support, including the Sustainable Farming Scheme (SFS). The Act provides Welsh Ministers with the power to provide support (financial or otherwise) for or in connection with 15 purposes, including 'Improving air quality'. Welsh Government published a consultation on the SFS which closed in March 2024. Welsh Ministers will not be making final scheme design decisions until further stakeholder work is undertaken.

One additional measure is given medium ranking: MB01 (prevent conversion of (semi-) natural habitats into forests). This recognises measures aimed at preventing planting on grassland priority habitat under the Woodland Creation Planning Scheme (formerly Glastir Woodland Creation), which currently encompasses most new tree planting in Wales.

The Actions Database lists actions for the following Conservation Measures, each given a low ranking: MC01, relating to managing quarrying activities, and MF04, relating mainly to control/prevention of fly tipping.

One additional low ranking conservation measure is included: MA11 (reduce/eliminate air pollution from agricultural activities). National regulations are in place but have been insufficient to prevent locally increasing ammonia pollution from expansion of poultry units.

Area figures calculated using GIS overlay analyses.

9.1:Future trends and prospects of parameters	Range: A small reduction in range is likely over the next 12 years, given that some 10km squares contain only small areas of the habitat, more vulnerable in some cases by being on non-statutory sites, and given that there have been recent losses in this habitat (see 5.3). Area: Recent visits to SSSIs (see 5.8) suggest that the trend in decreasing extent of the habitat previously identified is continuing and it seems likely to continue into the future given the wide range of pressures impacting the habitat, five of which are given 'high' ranking. Conservation measures are clearly having a significant positive impact at some sites, but cover an insufficiently large proportion of the habitat at the present time, going on the most recently available data. Less is known about the non-statutory sites, which form 39% of the resource, but recent Glastir coverage has only been 7% of the total habitat area. Overall it is likely that a slow decline in area will continue, but it is unclear if it is < or > 1% per year. Structure and function: The most recent assessments for statutory sites indicate poor condition of the habitat, with no cases of favourable condition identified on the 14 SSSs assessed during the current reporting round (see 6.2). There is no recent structure and function information for non-statutory sites. The Future prospects for Structure and functions takes into account that at least 25% of the habitat area is expected to be in unfavourable (not good) condition in c.2035 due to nutrient N critical load exceedance, unless additional

	measures are taken to reduce N deposition impacts. 83% of the habitat area in Wales currently exceeds the critical load (CL) for atmospheric nitrogen deposition.
10.1: Range	Conclusion on Range reached because: (i) the short-term trend direction in Range surface area is stable; and (ii) the current Range surface area is approximately equal to the Favourable Reference Range.
10.2: Area	Conclusion on Area reached because: (i) the short-term trend direction in Area is decreasing by 1% per year or less; and (ii) the current Area is more than 10% below the Favourable Reference Area.
10.3: Specific structure and functions	Conclusion on Structure and function reached because: i) habitat condition data indicates that more than 25% of the habitat is in unfavourable (not good) condition; and ii) short-term trend in area of habitat in good condition is decreasing
10.4: Future prospects	Conclusion on Future prospects reached because: (i) the Future prospects for Range are poor; (ii) the Future prospects for Area covered by habitat are bad; and (iii) the Future prospects for Structure and function are bad.
10.5: Overall assessment of Conservation Status	Overall assessment of Conservation Status is Unfavourable-bad because three of the conclusions are Unfavourable-bad.
5.13: Favourable Reference Area (FRA)	The UK-level FRV for surface area was developed by JNCC using an audit trail based on the year the FRV was first established and any changes made in subsequent reporting rounds. The audit may draw from any combination of the 2007, 2013, or 2019 Habitats Directive reports and reflects the full rationale used for the 2019 Article 17 reporting. Following expert review, a Wales-level FRV was derived based on habitat extent and trend evidence specific to Wales, rather than adopting the UK-level value. The revised FRV has been set as Stevens et al (2010) estimated losses of dry unimproved grassland to be 97% between 1930's and 1980s-90s. More recently, Smith (2012) visited 26 H6210 sites and noted loss of area since

	1990s at five. NRW monitoring between 2007 and 2024 recorded loss of area at 3 out of 14 sites. ERAMMP (2025) recorded a decrease of 23-75% in butterfly abundance and butterfly species richness in calcareous grassland.
4.10: Favourable Reference Range (FRR)	The UK-level FRV for range was developed by JNCC using an audit trail based on the year the FRV was first established and any changes made in subsequent reporting rounds. The audit may draw from any combination of the 2007, 2013, or 2019 Habitats Directive reports and reflects the full rationale used for the 2019 Article 17 reporting. This FRV was reviewed by Welsh experts and considered appropriate for use in Wales based on current distribution and trends.