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on the Conservation of Natural Habitats
and of Wild Fauna and Flora
(92/43/EEC)

Second Report by the United Kingdom under Article 17

on the implementation of the Directive
from January 2001 to December 2006

Conservation status assessment for :

H6430: Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels

H6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels

Audit trail compiled and edited by JNCC and the UK statutory nature conservation agencies Upland Lead Co-ordination Network.

This paper and accompanying appendices contain background and data used to complete the standard EC reporting form (Annex D), following the methodology outlined in the document entitled "Assessment, monitoring and reporting under Article 17 of the Habitats Directive, Explanatory Notes & Guidelines, Final Draft 5, October 2006." The superscript numbers below cross-reference to the headings in the corresponding Annex D reporting form. This supporting information should be read in conjunction with the UK approach for habitats (see 'Assessing Conservation Status: UK Approach').

1. National-biogeographic level information

1.1 General description and correspondance with National Vegetation Classification (NVC) and other habitat types

Table 1.1.1 provides a summary description of H6430 and its relations with UK classifications. This habitat type is typically found on ungrazed upland cliff ledges, occasionally extending on to open ground, and is restricted to base-rich substrates and somewhat sheltered situations. This is one of the few near-natural habitats remaining in Britain and frequently occurs in intimate mosaics with other Annex I habitat types in these ungrazed, or very lightly grazed, situations. It provides a refuge for rare, grazing-sensitive, montane plants. Closely related vegetation types, such as the hay meadows of the Pennines, conform to Annex I type 6520 Mountain hay meadows.

Hydrophilous tall herb fringe communities is a species-rich habitat corresponding to NVC type U17 *Luzula sylvatica – Geum rivale* tall-herb community. It is characterised by the abundance of a species-rich mix of tall, broad-leaved herbs, most of which are otherwise rare in the uplands owing to their sensitivity to grazing. These include species such as great wood-rush *Luzula sylvatica*, wild angelica *Angelica sylvestris*, roseroot *Sedum rosea*, wood crane's-bill *Geranium sylvaticum*, water avens *Geum rivale* and globe-flower *Trollius europaeus*. Some of these species, such as the last three, can be found as very impoverished, non-flowering specimens in grazed pastures adjacent to cliff refuges. This demonstrates the restrictive effects of grazing and the potential for expansion of the habitat. *L. sylvatica* is one of the more tolerant species, both with respect to soil conditions and grazing impacts, and occurs in a variety of communities other than this one.

Variation within the habitat type is related chiefly to geographical position, altitude, and soil conditions and rock type. Stands in the Scottish Highlands are richer in northern species, while stands further south have species of a more southerly distribution. In the Highlands stands at high-altitude are enriched by scarce arctic-alpine plants, such as holly fern *Polystichum lonchitis*, alpine saw-wort *Saussurea alpina*, black alpine-sedge *Carex atrata* and alpine cinquefoil *Potentilla crantzii*. The rarer species tend to occur on the more calcareous or base-rich ledges at high altitude and some species prefer wetter soils.

Table 1.1.1 Summary description of habitat H6430 and its relations with UK vegetation/habitat classifications

Classification	Correspondence with Annex I type	Comments
EU Interpretation Manual	37.7 - Wet and nitrophilous tall herb edge communities, along water courses and woodland borders belonging to the *Glechometalia hederaceae* and the *Convolvuletalia sepium* orders (*Senecion fluviatilis*, *Aegopodion podagrariae*, *Convolvulion sepium, Filipendulion*). 37.8 - Hygrophilous perennial tall herb communities of montane to alpine levels of the *Betulo-Adenostyletea* class.	These are the PAL.CLASS sub-types of H6430, found in the British Isles, based on CORINE classifications.
NVC	*U17 Luzula sylvatica-Geum rivale* tall herb community	
BAP priority habitat type	Upland natural rock and scree (proposed new priority habitat type)	A broader category which covers habitats wider than H6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels.
CSM reporting categories, for: a) SAC feature types; b) ASSI/SSSI feature types	Limestone pavement, inland cliffs and screes (See Williams 2006 www.jncc.gov.uk/page-3520)	A broader category which covers the following Annex I feature types: H6130 Calaminarian grasslands of the *Violetalia calaminariae* H8120 Calcareous and calcshist screes of the montane to alpine levels (*Thlaspietea rotundifolii*) H8210 Calcareous rocky slopes with chasmophytic vegetation H8310 Caves not open to the public H6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels H8240 Limestone pavements H8220 Siliceous rocky slopes with chasmophytic vegetation H8110 Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*)
JNCC CSM Guidance feature types	Tall herbs (JNCC 2005b www.jncc.gov.uk/page-2237)	Close correspondence to H6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels.

2. Range [2.3]

2.1 Current range
Range surface area [2.3.1]:   **40,408 km²**
Date calculated [2.3.2]:   **May 2007**
Quality of data [2.3.3]:   **Good**
The surface area estimate was calculated within alpha hull software, using extent of occurrence as a proxy measure for range (see Map 2.1.1). The value of alpha was set at 25 km; the alpha was clipped to include inland areas only.

Maps 2.1.1 and 2.1.2 show the range and distribution of H6430 in the UK. In the UK this is a very rare habitat. It is most widespread in the Scottish Highlands, becoming more fragmentary on the Scottish islands and further south in the UK.

Map 2.1.1 Habitat range map [1.1] for H6430	Map 2.1.2 Habitat distribution map [1.2] for H6430
Range envelope shown in blue/grey shade in above map is a minimum convex polygon constructed using JNCC Alpha Shapes tool (see Technical note I for details of methodology).	Each yellow square represents a 10 x 10-km square of the National Grid and shows the known and/or predicted occurrence of this habitat. 10-km square count: 164
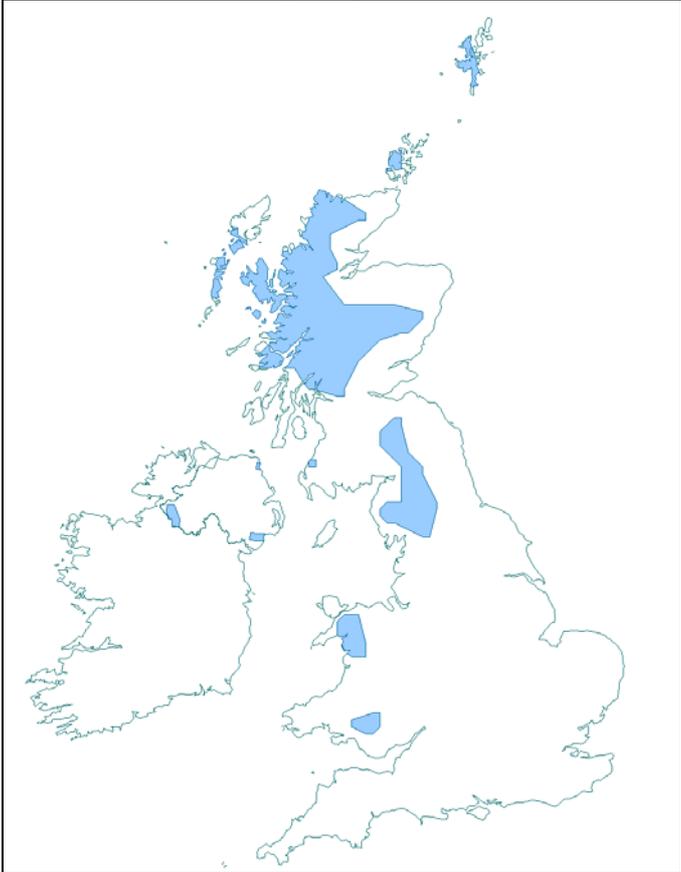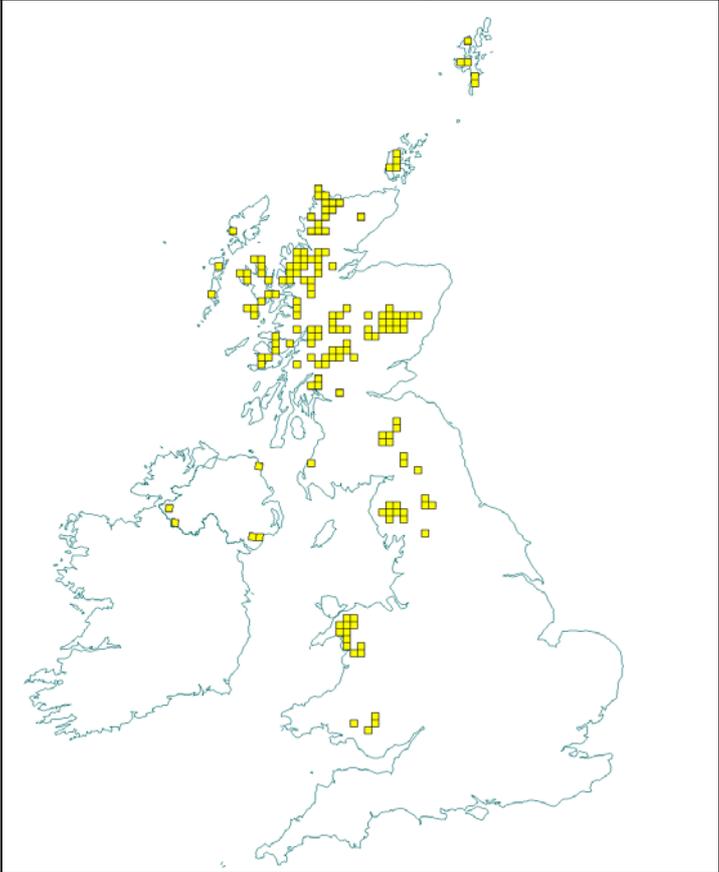
See Section 7.1 for data sources

2.2 Trend in range since c.1994

Trend in range[2.3.4]:   **Stable**
Trend magnitude[2.3.5]:   **Not applicable**
Trend period[2.3.6]:   **1994-2006**
Reasons for reported trend[2.3.7]:   **Not applicable**

Although there is no readily available evidence or information on any trend in range for H6430 since 1994, expert opinion is that the range of the habitat has remained stable since that time and that the range shown in Map 2.1.1 is viable.

2.3 Favourable reference range

Favourable reference range[2.5.1]:   **40,410 km^2**

Section 3.2.1.3 of 'Assessing Conservation Status: UK Approach' sets out how favourable reference range estimates for habitats have been determined in the UK. Based on this approach, the current surface area, 40,410 km^2, has been set as the favourable reference area. Reasons for this are discussed below.

There is no readily available information on the historic distribution of H6430 before 1994. The current distribution of H6430 as shown on Map 2.1.2 is naturally limited by geological and hydrological conditions and from survey data, there appears to be little scope for increase in range. These requirements also mean that the resource has a naturally fragmented distribution within its range.

There are a few unsurveyed places in the Scottish Highlands where the habitat could still be found or on surveyed sites where it has been missed because it is heavily grazed, but these will probably not be numerous. Consequently the known distribution of H6130 shown in Map 2.1.2 is likely to be occupying most of its potential natural range. Expert judgement is that favourable reference range and distribution is likely to match closely the current range and distribution.

2.4 Conclusions on range

Conclusion[2.6.i]:   **Favourable**

There is no empirical information on any changes in range for H6430 since 1994, nor any previous historical data on extent or changes. However expert opinion suggests that the current range is considered to be close to potential range for the habitat and to its favourable reference range, and so the judgement on range for H6430 is Favourable.

3. Area [2.4]

3.1 Current area

Total UK extent [2.4.1]:   **3.5 km²**
Date of estimation [2.4.2]:   **May 2007**
Method [2.4.3]:   **1 = only or mostly based on expert opinion**
Quality of data [2.4.4]:   **Poor**

Table 3.1.1 provides information on the area of H6430 in the UK. There is no comprehensive data available for the extent of this habitat type in the UK, which has a naturally limited extent due to the particular geological and hydrological conditions required. The range of values provided are estimates based on the opinion of upland experts in the country conservation agencies as represented on the inter-agency Upland Lead Co-ordination Network; the total value has been derived simply from the total area of this habitat on SACs, which is judged by expert opinion to account for most of the UK resource.

Table 3.1.1 Area of H6430 in the UK

	Area (ha)	Method [2.4.3]	Quality of data [2.4.4]
England	30-40	1	Poor
Scotland	150-250	1	Poor
Wales	45-50	1	Poor
Northern Ireland	15	1	Poor
Total UK extent [2.4.1]	350	1	Poor

Method used to estimate the habitat surface area: 1 = only or mostly based on expert opinion; 2 = based on remote sensing data; 3 = ground based survey. Only the most relevant class is given if more than one applies.
Quality of habitat surface area data: 'Good' e.g. based on extensive surveys; 'Moderate' e.g. based on partial data with some extrapolation; 'Poor' e.g. based on very incomplete data or on expert judgement.

3.2 Trend in area since c.1994

Trend in area[2.4.5]:   **Stable**
Trend magnitude[2.4.6]:   **Not applicable**
Trend period[2.4.7]:   **1994-2006**
Reasons for reported trend[2.4.8]: **Not applicable**

Although there is no readily available evidence or information on any trend in area for H6430 since 1994, expert opinion is that the extent of the habitat has remained stable since that time and that the range shown in Map 2.1.1 is viable. In very recent years, the trend in area has probably been stable.

3.3 Favourable reference area

Favourable reference area[2.5.2]:   **Unknown**

There is no readily available information on the historic area of H6430 before 1994. The potential area of H6430 is naturally limited by specific geological and hydrological conditions as described in Section 1.1. However expert opinion suggests that the area occupied by H6430 probably decreased in the past when high leve,ls of grazing were introduced to the UK uplands. This grazing pressure has left the habitat type on inaccessible sites where it has remained, although degraded stands can be found in areas more accessible to grazing animals.

The particular environmental conditions required for H6430 also mean that the habitat is naturally fragmented, and both the total area and patch size are likely to have decreased (and fragmentation increased) due to grazing pressure.

Although unlikely to have ever been extensive the small total UK area of H6430 and its patch-size distribution mean that it is likely to be currently at less than its favourable reference area. However, there is no quantitative information available to suggest how the current area and inferred trends might relate to favourable reference area for H6430. Without further analysis it is not possible to conclude whether the current estimated UK extent for H6430 of 200-350 ha is more or less than 10% below the favourable reference area and so the favourable reference area is unknown.

3.4 Conclusions on area covered by habitat
Conclusion[2.6.ii]:   **Unfavourable – Inadequate**
Most of the current UK resource of H6430 lies within protected statutory sites, and is unlikely to have ever been very extensive due to its specific hydrological and geological requirements. However, the resource is isolated in often very small patches that are vulnerable to stochastic events, a situation exacerbated by past grazing pressure. Although degraded forms of the resource are found in areas accessible to grazing animals, intact stands of the resource are now restricted to areas inaccessible to grazing and expert judgement suggest that the extent has been stable since 1994.

This suggests that the resource of H6430 in the UK occupies less than its favourable reference area, but there is no information on historic or more recent trends in area or other information to suggest whether the favourable reference area is more or less than 110% of the current area. Hence the conclusion for the area parameter for H7210 is that it is at least Unfavourable - Inadequate.

4 Specific structures and functions [(including typical species)]

4.1 Main pressures[2.4.10]
The following list of main pressures for H6430 has been derived from the six year Common Standards Monitoring (CSM) results for Special Areas of Conservation (SACs) designated for their representation of H6430. The related EC codes are shown in brackets:
- Grazing (**140 Grazing**)
  Over-grazing has been recorded as a reason for adverse condition of H6430 in the SAC series, principally of the few more opens stands. This leads to loss of vegetation structure and the failure of more palatable or vulnerable species to reproduce and maintain themselves. It can also lead to the loss of plant species and associated fauna.

- Fragmentation (**990 Other natural processes**)
  The habitat is naturally limited by geological and hydrological requirements leading scattered distribution and small extent of individual patches. Fragmentation has been exacerbated by past grazing pressure.

- Absence of or inappropriate management (**141 Abandonment of pastoral systems**)

Lack of or inappropriate management of existing stands of H6430 leading to drying and scrub encroachment.

- Burning **(180 Burning)**
  Burning of adjoining associated habitats has led to damage to isolated patches of H6430 on some parts of the SAC series.

- Air pollution **(702 Air pollution)**
  Based on an assessment of the exceedence of relevant critical loads (see Technical note III), air pollution is considered to be a potentially significant pressure to the structure and function of this habitat.

4.2 Current condition

4.2.1 CSM condition assessments

Condition assessments based on CSM (see www.jncc.gov.uk/page-2199) provide a means to assess the structure and functioning of H6430 in the UK. The following attributes were examined for all CSM assessments relevant to the habitat:

- Feature (habitat) extent.
- Vegetation composition: frequency of taxa which are indicators of favourable condition; cover of taxa which are indicators of favourable condition, and others which are indicators of unfavourable condition.
- Vegetation structure: growth stages, burning, grazing, and disturbance.
- Physical structure: ground disturbance.

SACs include all the extent (353 ha) of H6430 in the UK in a well dispersed network across its range.

SAC condition assessments

Table 4.2.1 and Map 4.2.1 summarise the CSM condition assessments for UK SACs supporting habitat H6430. These data were collated in January 2007. The maps give an impression of the overall spread of where unfavourable and favourable sites exist (summary statistics for the map are given in Section 7.2). The combined assessments show that of the SACs assessed:

- 46% of the area and 25% of the number of assessments was unfavourable; and
- at least 44% of the total UK habitat area was in unfavourable condition.

Most accessible sites with this vegetation are in unfavourable condition due to overgrazing. It is very susceptible to grazing, which results in loss of species and structure. Inaccessible stands are usually in favourable condition as it requires no grazing and being a variable community can range from having a number of species on a large site, to being dominated by one or two on species on smaller ledges. Many sites in the Breadalbanes in the Scottish Highlands are dominated by *Deschampsia cespitosa* due to heavy grazing. Tall herbs are subordinate in this community, which is therefore in unfavourable condition.

Table 4.2.1 CSM condition assessment results for UK SACs supporting H6430

Condition	Condition sub-categories	Area (ha)	Number of site features
Unfavourable	Declining		
	No change	15	3
	Unclassified		
	Recovering	140	3
	Total	155	6
	% of all assessments	*46%*	*25%*
	% of total UK resource	*44%*	*unknown*
Favourable	Maintained	184	17
	Recovered		
	Unclassified	01	1
	Total	185	18
	% of all assessments	*54%*	*75%*
	% of total UK resource	*52%*	*unknown*

Notes

1. Data on features that have been partly-destroyed have been excluded from this table because they are not relevant to the consideration of present condition.
2. The data included are from CSM assessments carried out between April 1998 and December 2006. NB: these include additional and some up-date data form those used in the six year report produced by JNCC. (Williams, J.M., ed. 2006. *Common Standards Monitoring for Designated Sites: First Six Year Report*. Peterborough, JNCC).
3. Only assessments made for qualifying interest features on SAC have been included in this analysis.
4. Area figures for CSM assessments have been calculated using the data presented on the standard Natura 2000 data forms submitted to the EU.

Sites of Special Scientific Interest (SSSI)/Area of Special Scientific Interest (ASSI) condition assessments

As most of the resource of H6430 lies on SACs, SSSI/ASSI condition assessments have not been used to inform on structure and function.

Current Condition of H6430 based on CSM condition assessments (See Sections 4.2 and 7.2 for further information)		
Map 4.2.1 SAC assessments	**Map 4.2.2** Assessments strongly indicative of the condition on SSSI/ASSIs	**Map 4.2.3** Assessments weakly indicative of the condition on SSSI/ASSIs
	Not applicable	Not applicable
Key	Key*	
<u>Red = Unfavourable</u>, i.e. the square contains at least one SAC where this habitat feature is present and has been judged to be unfavourable	<u>Green</u> – 80 – 100% of assessed features on 10-km square are favourable	
<u>Green = Favourable</u>, i.e. the square contains at least one SAC where this habitat feature is present and has been assessed as favourable but there are no unfavourable SAC features	<u>Yellow</u> - 50 – 80% of assessed features on 10-km square are favourable	
<u>Blue = SAC not assessed</u>, i.e. the square contains at least one SAC supporting this habitat feature but no assessment has been reported	<u>Orange</u> - 20 – 50% of assessed features on 10-km square are favourable	
<u>Transparent = SAC feature not present</u>, i.e. the square does not contain any SAC features of this habitat type	<u>Red</u> - 0 – 20% of assessed features on 10-km square are favourable *This is the same key as was used for JNCC CSM Report 2006	

Current status of HSD features
CURRENT_ST
- ■ unfavourable
- ■ favourable
- ■ not assessed
- □ not on SAC

4.3 Typical species
Typical species[2.5.3]: *Poa glauca, Orthilia secunda*
Typical species assessment[2.5.4]: **Change in 10 km square occupancy across UK over last 25 years**

The UK trends of the following typical species are considered to indicative or informative on the structure and function of the UK resource of H6430:

Table 4.3.1 Trends and faithfulness of selected typical species for H6430

Typical species considered [2.5.3]:	Faithfulness to habitat H6430 (based on analysis of NVC synoptic tables)	Trend over last 25 years from BSBI atlas - based on change in 10 km square occupancy across UK (see http://www.jncc.gov.uk/page-3254)
Poa glauca	Very high	Significant decline, but less than 25% in 25yrs
Orthilia secunda	Medium	Significant decline, but less than 25% in 25yrs

None of the other species listed as characteristic of this habitat in the EU Interpretation Manual are particularly faithful to this habitat so available trend data at the UK-level is not particularly meaningful and has not been utilised here. Overall the trends for these species suggest that the condition of the wider resource of H6430 has declined; however there are no trends for the species specifically since 1994.

4.4 Conclusions on specific structures and functions (including typical species)
Conclusion[2.6.iii]: **Unfavourable - Bad but improving**

The EC Guidance states that where "more than 25% of the area of the habitat is unfavourable as regards its specific structures and functions", the conclusion should be Unfavourable – Bad. In the UK this was generally taken to mean that more than 25% of the habitat area in unfavourable condition.

CSM data for 2000-2006 for SACs suggests 46% of SACs supporting H6430 are unfavourable. Around 41% of the assessed SAC area is recovering and only 4% is declining, suggesting a general improvement in the condition of H6430 in these sites.

Expert opinion suggests that more than 95% of the UK resource of H6430 lies within SACs. Given this high representation and in the absence of date from sites outside the statutory site series, the figures from CSM data for SACs have been extrapolated as being representative of the UK resource overall and this suggests that much more than 25% of the UK area for H6430 is in unfavourable condition. With substantially more of the assessed SAC resource in the Unfavourable category improving as declining, this suggests a judgement of Unfavourable – Bad but improving for the structure and function parameter for H6430.

5. Future prospects

5.1.1 Conservation measures
• Protection within SACs

The majority of the known resource of H6430 lies within SACs with management measures specifically aimed at maintaining and enhancing the features for which they are designated, and to address some of the pressures listed within section 4.1 and the future threats listed in section 5.1.2. These include for example the removal of grazing in Cwm Idwal National Nature Reserve (NNR) in Wales and large grazing exclosures on Ben Lawers).

- Agri-environment measures

A suite of agri-environment measures are now in place in both the uplands and lowlands which are addressing more appropriate management, particularly grazing levels, for much of the resource of H6430, particularly within the statutory site series.

- UK BAP

H6430 has been put forward as part of a new priority habitat type - upland natural rock and scree - but is not currently covered by any priority habitat action plan under the UK Biodiversity Action Plan (BAP).

5.1.2 Main future threats[2.4.11]

The most obvious major future threats to H6430 are listed below, several of which are referred to in Section 4.1. The related EC codes are shown in brackets:

- Grazing **(140 Grazing)**
- Fragmentation **(990 Other natural processes)**
- Absence of or inappropriate management **(141 Abandonment of pastoral systems)**
- Burning **(180 Burning)**

- Climate change **(750 Other pollution or human impacts/ activities)**

Based on the literature review (Technical note IV) climate change is considered a major threat to the future condition of this habitat especially in the long term. However, there is a high degree of uncertainty in defining future climate threats on habitats and species due to uncertainty in: future greenhouse gas emissions; the consequential changes in climatic features (for instance temperature, precipitation CO_2 concentrations); the responses of habitats and species to these changes (for instance location, phenology, community structure) and the role of other socio-economic drivers of environmental change. The scale of change in habitats and species as a result of climate change will vary across ecosystems. Small changes in the climate are more likely to have a substantial impact on habitats and species which exist within a narrow range of environmental conditions. The future impacts of climate change on UK biodiversity will be exacerbated when coupled with other drivers of environmental change.

- Air pollution **(702 Air pollution)**

Based on an assessment of the exceedance of relevant critical loads (see Technical note III), air pollution is considered to be a potentially significant threat to the future condition of this habitat.

5.2 Future condition [(as regards range, area covered and specific structres and functions)]

5.2.1 CSM condition assessments

The CSM condition assessments reported in Sections 4.2.1-2 provide a basis to predict the potential future condition of H6430 in the UK. This involved treating all assessments currently identified as either favourable or unfavourable recovering as future-favourable: remaining categories were treated as future-unfavourable – see Table 5.2.1.1. There are a number of caveats to this approach, which are set out beneath this table.

SAC condition assessments

Table 5.2.1 and Map 5.2.1 summarise the predicted potential future condition of H6430 on UK SACs. This is based on the approach described above. The maps give an impression of the overall spread of where future-unfavourable and future-favourable sites are predicted to occur (summary statistics for the map are given in Section 7.2). The combined assessments show that of the SACs assessed:

- 96% of the area and 88% of the number of assessments fall within the future-favourable category; and
- at least 4% of the total UK habitat area falls within the future-favourable category.

Table 5.2.1 Predicted future condition of UK SACs supporting H6430 based on current CSM condition assessments. See notes below table for details. Information on the coverage of these results is given in Section 7.2

Future condition	Present condition	Area (ha)	Number of site features
Future-unfavourable	Unfavourable declining		
	Unfavourable no change	15	3
	Unfavourable unclassified		
	Total	15	3
	% of assessments	*04%*	*13%*
	% of total UK extent	*4%*	*Unknown*
Future-favourable	Favourable maintained	184	17
	Favourable recovered		
	Unfavourable recovering	140	3
	Favourable unclassified	01	1
	Total	325	21
	% of assessments	*96%*	*88%*
	% of total extent	*92%*	*Unknown*

Note that the scenario presented above is based on the same information as used to construct the Table in section 4.1. It is based on the following premises:

(i) the unfavourable-recovering condition assessments will at some point in the future become favourable;

(ii) all unfavourable-unclassified sites will remain unfavourable, which is probably overly pessimistic;

(iii) sympathetic management will be sustained on sites already classified as favourable and these will not be seriously damaged by any unforeseen events.
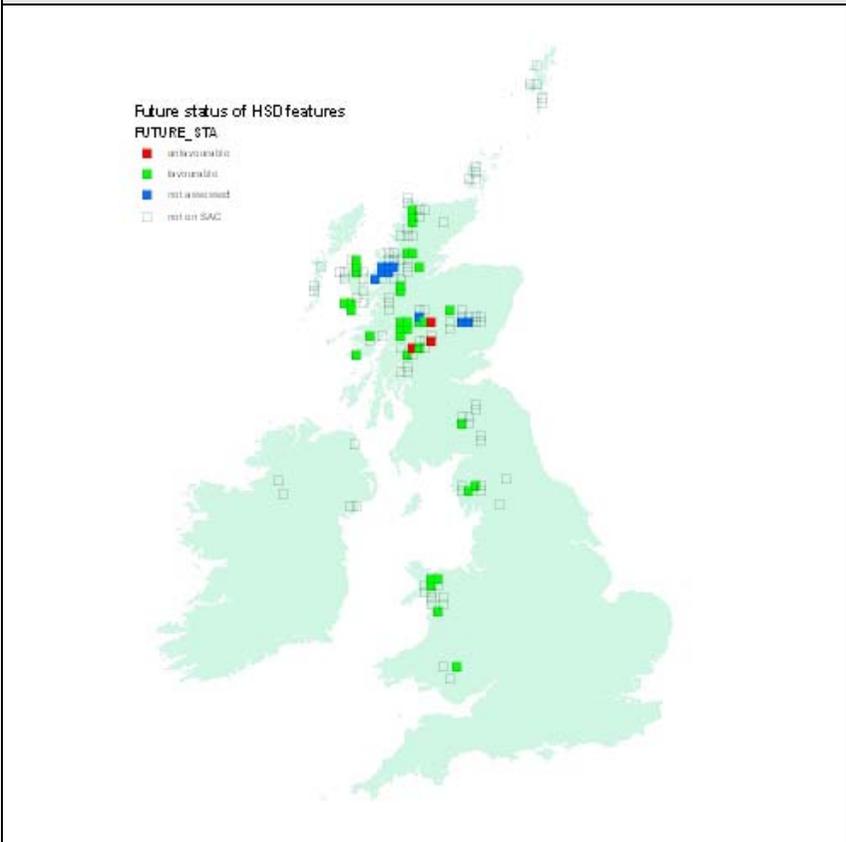
IMPORTANT NOTE: We do not have information on the timescale of the predicted recovery, which may be influenced by many past, natural and human related factors. A sustained, sympathetic management regime is more likely to result in 'favourable' condition being attained.

SSSI/ASSI condition assessments

As most of the resource of H6430 lies on SACs, SSSI/ASSI condition assessments have not been used to inform on future prospects.

Predicted Future Condition of H6430 based on CSM condition assessments (See Sections 5.2 and 7.2 for further information on these maps)		
Map 5.2.1 SAC assessments	**Map 5.2.2** Assessments strongly indicative of the condition on SSSI/ASSIs	**Map 5.2.3** Assessments weakly indicative of the condition on SSSI/ASSIs
	Not applicable	Not applicable
Key Red = Future - Unfavourable, i.e. the square contains one or more SACs where this habitat feature is present and has been predicted to be future-unfavourable Green = Future - Favourable, i.e. the square contains at least one SAC where this habitat feature is present and has been predicted to be future-favourable Blue = SAC not assessed, i.e. the square contains at least one SAC supporting this habitat feature but no assessment has been reported Transparent = SAC feature not present, i.e. the square does not contain any SAC features of this habitat type	Key* Green – 80 – 100% of assessed features on 10-km square are favourable Yellow - 50 – 80% of assessed features on 10-km square are favourable Orange - 20 – 50% of assessed features on 10-km square are favourable Red - 0 – 20% of assessed features on 10-km square are favourable *This is the same key as was used for JNCC CSM Report 2006	

Future status of HSD features
FUTURE_STA
- unfavourable
- favourable
- not assessed
- not on SAC

5.3 Conclusions on future prospects [as regards range, area covered and specific structres and functions]

Conclusion[2.6.iv]:   **Favourable**

The EC Guidance states that where "habitat prospects are bad, with severe impacts from threats expected and long-term viability not assured", the judgement should be Unfavourable – Bad. In the UK, this was generally taken to mean that habitat range and/or area are in decline, and/or less than 75% of the habitat area is likely to be in favourable condition in 12-15 years.

Many of the future threats and pressures (particularly grazing; lack of or inappropriate management; and burning) on H6430 are being addressed for the majority of the resource of H6430 that lies within the statutory site series; as well as through agri-environment measures.

This habitat can be brought back to favourable condition given a relaxation of grazing. Where grazing occurs below existing stands, quite often many of the species are in the grazed sward, but are dwarfed and do not flower. It has been shown that exclusion of grazing animals for a number of years can result in the restoration of the habitat. Many of the species are relatively widespread and so can colonise if they occur in a flowering form in the vicinity.

There is no evidence to suggest a future decline in the area or range of H6430 in the UK by more than 1% p.a., and the evidence for future favourability from CSM suggest that 96% of the habitat is likely to achieve favourable condition. There is some uncertainty however on the impact brought about by atmospheric deposition and climate change. Overall the above suggests a judgement of Favourable for the future prospects for H6430.

6. Overall conclusions and judgements on conservation status

Conclusion[2.6]:   **Unfavourable - Bad but improving**

EU Commission guidance advises that where "more than 25% of the area of the habitat is unfavourable as regards its specific structures and functions", the conclusion should be Unfavourable – Bad.

Table 6.1 Summary of overall conclusions and judgements

Parameter	Judgement	Grounds for judgement	Confidence in judgement*
Range	Favourable	Current range is stable and not less than the favourable reference range.	2
Area covered by habitat type within range	Unfavourable - Inadequate	The current area is less than the favourable reference area but not by more than 10%	2
Specific structures and functions (including typical species)	Unfavourable - Bad but improving	More than 25% of the habitat area is considered to be unfavourable as regards its specific structures and functions. Significantly more of the resource in unfavourable condition is improving than declining.	2
Future prospects (as regards range, area covered and specific structures and functions)	Favourable	Habitat prospects over the next 12-15 years considered to be good with no significant impacts from threats expected and long-term viability assured.	2
Overall assessment of conservation status	Unfavourable - Bad but improving	One parameter judged as Unfavorable-Bad	2

Key to confidence in judgement: 1 = High; 2 = Medium; 3 = Low

7. Annexed material (including information sources used 2.2)

7.1 References

HAINES-YOUNG, R.H. *et al.* 2000. Accounting for nature: assessing habitats in the UK countryside. DETR, Rotherham.

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Map Data Sources

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JNCC International Designations Database. Joint Nature Conservation Committee.

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7.2 Further information on CSM data as presented in Sections 4.2 and 5.2

Table 7.2.1 Summary of the coverage of the data shown in Tables 4.2.1 and 5.2.1

Data	Value
Number of SACs supporting feature (a)	28
Number of SACs with CSM assessments (b)	24
% of SACs assessed (b/a)	86
Extent of feature in the UK – hectares (c)	353
Extent of feature on SACs – hectares (d)	353
Extent of features assessed – hectares (e)	340
% of total UK hectarage on SACs (d/c)	100
% of SAC total hectarage that has been assessed (e/d)	96
% of total UK hectarage that has been assessed (e/c)	96

Notes
1. Extent of features on SACs (d) includes only those features that have been submitted on the official Natura 2000 data form as qualifying features. This figure is based on the habitat extent figures presented on standard Natura 2000 data forms.
2. The data included are from CSM assessments carried out between April 1998 and December 2006. NB: these include additional and some up-date data form those used in the six year report produced by JNCC (Williams, J.M., ed. 2006. *Common Standards Monitoring for Designated Sites: First Six Year Report*. Peterborough, JNCC).

Table 7.2.2 Summary of grid square map data shown in Maps 4.2.1-3 and 5.2.1-3

Status	Number of squares	Proportion of all squares
Current – Unfavourable (red)	8	6%
Current – Favourable (green)	29	21%
On SAC but not assessed (blue)	9	6%
Not on SAC (transparent)	95	67%
Total Number of 10-km squares (any colour)	141	
Future – Unfavourable (red)	3	2%
Future – Favourable (green)	34	24%