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

Fourth Report by the United Kingdom under Article 17

on the implementation of the Directive
from January 2013 to December 2018

Supporting documentation for the
conservation status assessment for the habitat:

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

NORTHERN IRELAND

IMPORTANT NOTE - PLEASE READ

- The information in this document is a country-level contribution to the UK Report on the conservation status of this habitat, submitted to the European Commission as part of the 2019 UK Reporting under Article 17 of the EU Habitats Directive.
- The 2019 Article 17 UK Approach document provides details on how this supporting information was used to produce the UK Report.
- The UK Report on the conservation status of this habitat is provided in a separate document.
- The reporting fields and options used are aligned to those set out in the European Commission guidance.
- Explanatory notes (where provided) by the country are included at the end. These provide an audit trail of relevant supporting information.
- 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 only relevant at UK-level (sections 10 Future prospects and 11 Conclusions).
- For technical reasons, the country-level future trends for Range, Area covered by habitat and Structure and functions are only available in a separate spreadsheet that contains all the country-level supporting information.
- The country-level reporting information for all habitats and species is also available in spreadsheet format.

Visit the JNCC website, https://jncc.gov.uk/article17, for further information on UK Article 17 reporting.

Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

NATIONAL LEVEL

1. General information

1.1 Member State	**UK (Northern Ireland information only)**
1.2 Habitat code	**6430 - Hydrophilous tall herb fringe communities of plains and of the montan**

2. Maps

2.1 Year or period	2013-2018
2.3 Distribution map	Yes
2.3 Distribution map Method used	Based mainly on expert opinion with very limited data
2.4 Additional maps	No

BIOGEOGRAPHICAL LEVEL

3. Biogeographical and marine regions

3.1 Biogeographical or marine region where the habitat occurs	**Atlantic (ATL)**
3.2 Sources of information	Cooper, A. & McCann, T. (2001). The Northern Ireland Countryside Survey 2000. Environment and Heritage Service, Belfast Cooper, A., McCann, T. and Rogers, D. (2009) Northern Ireland Countryside Survey 2007: Broad Habitat Change 1998-2007. Northern Ireland Environment Agency. Northern Ireland Environment Agency Research and Development Series No. 09/06. Belfast. 58 pp. McCann, T., Rogers, D. and Cooper, A. (2009) Northern Ireland Countryside Survey 2007: Field methods and technical manual. Northern Ireland Environment Agency. Northern Ireland Environment Agency, Research and Development Series No 09/07. Belfast. Murray, R., McCann, T. and Cooper, A. (1992). A Land Classification and Landscape Ecological Study of Northern Ireland. Department of the Environment NI and Department of Environmental Studies, University of Ulster, Coleraine. Rodwell, J.S. (1992). British Plant Communities. Volume 3, Grasslands and Montane Communities. Cambridge: Cambridge University Press NIEA. Internal Condition Assessment Reports (various sites and years). NIEA. Internal Survey Reports (various sites and years). Rodwell, J.S., Dring, J.C., Averis, A.B.V., Proctor, M.C.F., Malloch, A.J.C., Schaminee, J.H.J & Dargie, T.C.D. 1998. Review of Coverage of the National Vegetation Classification. Lancaster: Unit of Vegetation Science report to the Joint Nature Conservation Committee. Data on aerial Nitrogen deposition taken from Air Pollution Information System website - http://www.apis.ac.uk/

4. Range

4.1 Surface area (in km²)		
4.2 Short-term trend Period		
4.3 Short-term trend Direction	Stable (0)	
4.4 Short-term trend Magnitude	a) Minimum	b) Maximum
4.5 Short-term trend Method used		
4.6 Long-term trend Period		
4.7 Long-term trend Direction		
4.8 Long-term trend Magnitude	a) Minimum	b) Maximum

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4.9 Long-term trend Method used	
4.10 Favourable reference range	a) Area (km²) b) Operator c) Unknown No d) Method
4.11 Change and reason for change in surface area of range	No change The change is mainly due to:
4.12 Additional information	

5. Area covered by habitat

5.1 Year or period	2013-2018		
5.2 Surface area (in km²)	a) Minimum	b) Maximum	c) Best single value 0.15
5.3 Type of estimate	Best estimate		
5.4 Surface area Method used	Based mainly on expert opinion with very limited data		
5.5 Short-term trend Period	2007-2018		
5.6 Short-term trend Direction	Stable (0)		
5.7 Short-term trend Magnitude	a) Minimum	b) Maximum	c) Confidence interval
5.8 Short-term trend Method used	Based mainly on expert opinion with very limited data		
5.9 Long-term trend Period	1994-2018		
5.10 Long-term trend Direction	Unknown (x)		
5.11 Long-term trend Magnitude	a) Minimum	b) Maximum	c) Confidence interval
5.12 Long-term trend Method used			
5.13 Favourable reference area	a) Area (km²) b) Operator c) Unknown No d) Method		
5.14 Change and reason for change in surface area of range	No change The change is mainly due to:		
5.15 Additional information			

6. Structure and functions

6.1 Condition of habitat	a) Area in good condition (km²)	Minimum	Maximum
	b) Area in not-good condition (km²)	Minimum	Maximum
	c) Area where condition is not known (km²)	Minimum 0.15	Maximum 0.15
6.2 Condition of habitat Method used	Insufficient or no data available		
6.3 Short-term trend of habitat area in good condition Period	2007-2018		
6.4 Short-term trend of habitat area in good condition Direction	Unknown (x)		

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6.5 Short-term trend of habitat area in good condition Method used	Insufficient or no data available
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	

7. Main pressures and threats

7.1 Characterisation of pressures/threats

Pressure	Ranking
Intensive grazing or overgrazing by livestock (A09)	M
Agricultural activities generating air pollution (A27)	M
Temperature changes (e.g. rise of temperature & extremes) due to climate change (N01)	M
Other invasive alien species (other then species of Union concern) (I02)	M
Burning for agriculture (A11)	M

Threat	Ranking
Intensive grazing or overgrazing by livestock (A09)	M
Agricultural activities generating air pollution (A27)	M
Temperature changes (e.g. rise of temperature & extremes) due to climate change (N01)	M
Other invasive alien species (other then species of Union concern) (I02)	M
Burning for agriculture (A11)	M

7.2 Sources of information

7.3 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	Maintain the current range, population and/or habitat for the species	
8.3 Location of the measures taken	Both inside and outside Natura 2000	
8.4 Response to the measures	Medium-term results (within the next two reporting periods, 2019-2030)	

8.5 List of main conservation measures

Reduce/eliminate air pollution from agricultural activities (CA12)
Adapt mowing, grazing and other equivalent agricultural activities (CA05)
Implement climate change adaptation measures (CN02)
Management, control or eradication of other invasive alien species (CI03)

8.6 Additional information

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9. Future prospects

9.1 Future prospects of parameters	a) Range b) Area c) Structure and functions
9.2 Additional information	

10. Conclusions

10.1. Range	
10.2. Area	
10.3. Specific structure and functions (incl. typical species)	
10.4. Future prospects	
10.5 Overall assessment of Conservation Status	
10.6 Overall trend in Conservation Status	
10.7 Change and reasons for change in conservation status and conservation status trend	a) Overall assessment of conservation status No change The change is mainly due to: b) Overall trend in conservation status No change The change is mainly due to:
10.8 Additional information	

11. Natura 2000 (pSCIs, SCIs, SACs) coverage for Annex I habitat types

11.1 Surface area of the habitat type inside the pSCIs, SCIs and SACs network (in km² in biogeographical/ marine region)	a) Minimum b) Maximum c) Best single value 0
11.2 Type of estimate	Best estimate
11.3 Surface area of the habitat type inside the network Method used	Insufficient or no data available
11.4 Short-term trend of habitat area in good condition within the network Direction	Unknown (x)
11.5 Short-term trend of habitat area in good condition within network Method used	Insufficient or no data available
11.6 Additional information	

12. Complementary information

12.1 Justification of % thresholds for trends	
12.2 Other relevant information	

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Distribution Map

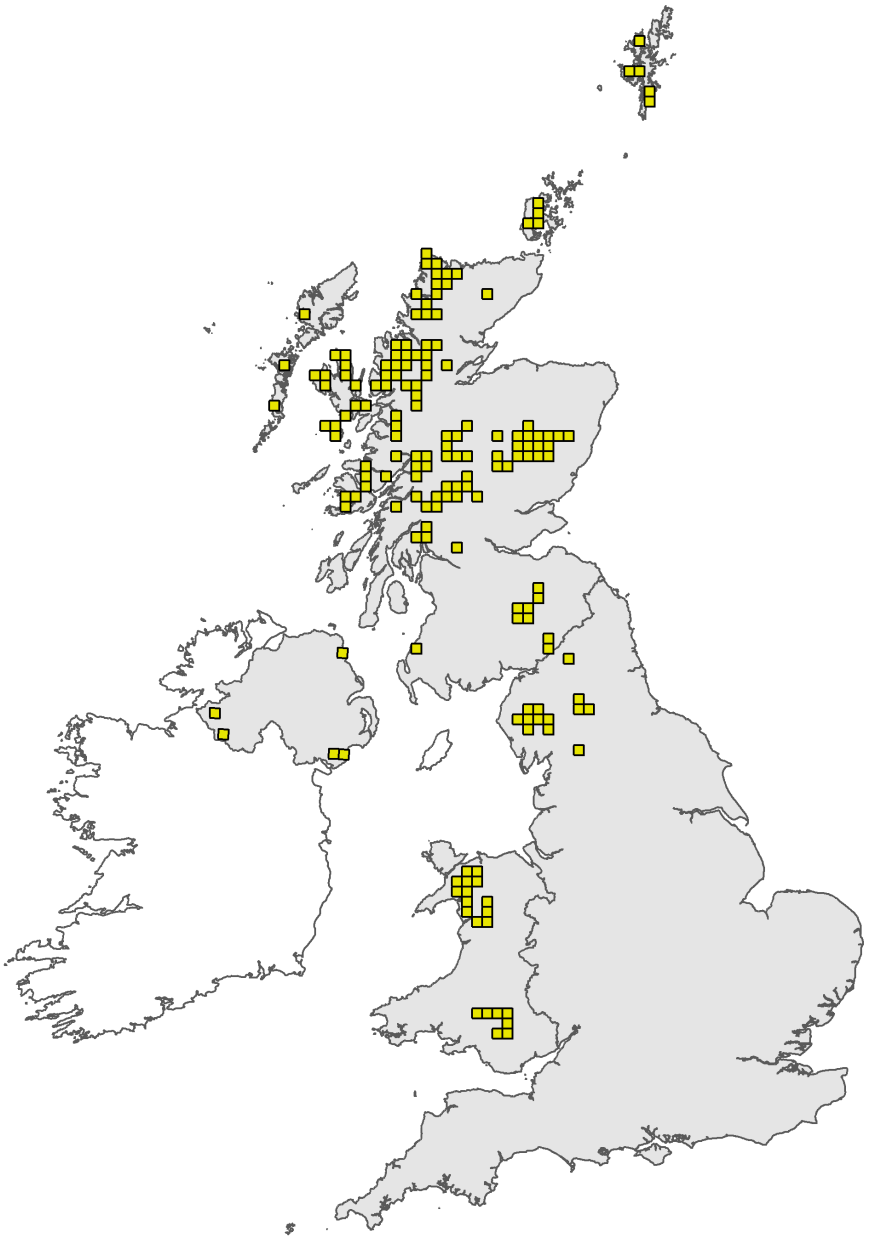

Figure 1: UK distribution map for H6430 - Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The 10km grid square distribution map is based on available habitat records which are considered to be representative of the distribution within the current reporting period. For further details see the 2019 Article17 UK Approach document.

Range Map

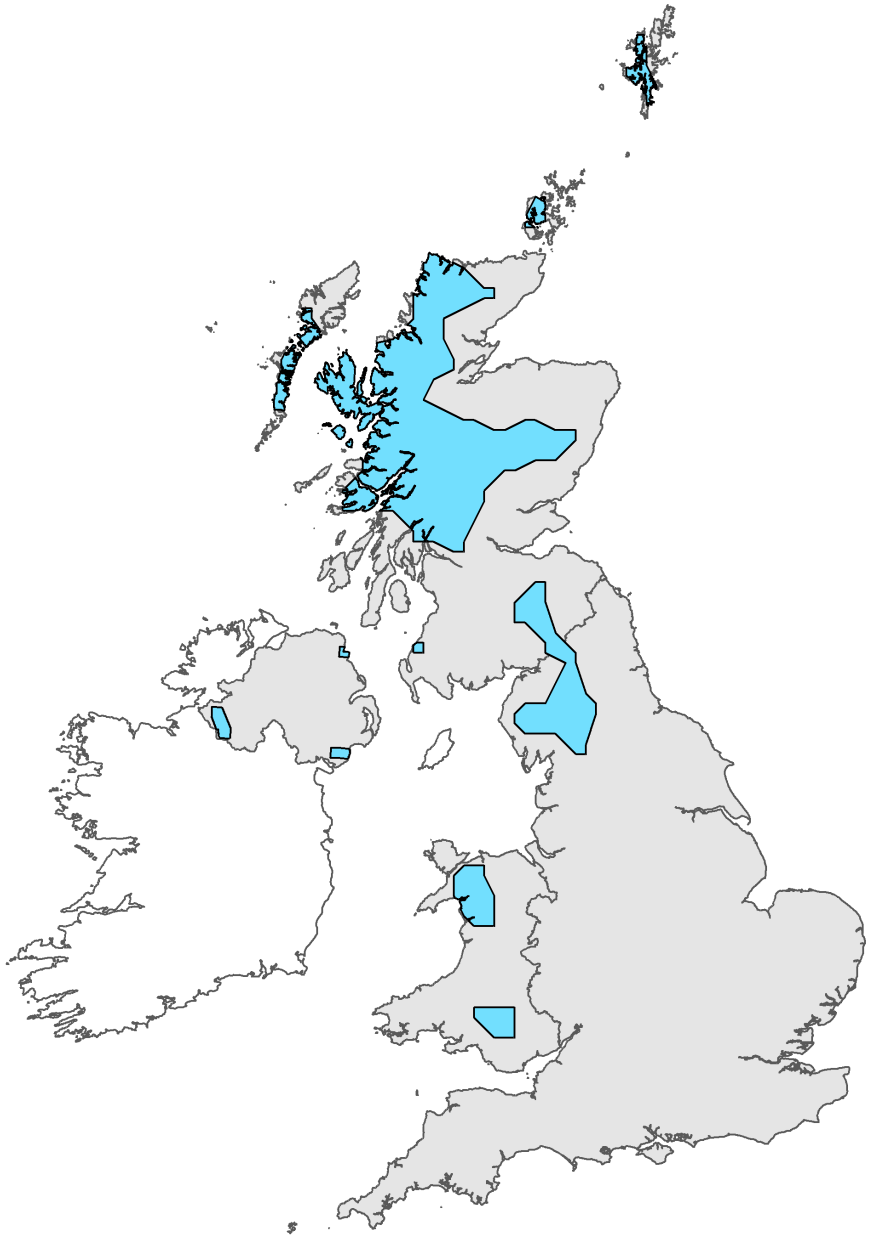

Figure 2: UK range map for H6430 - Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The range map has been produced by applying a bespoke range mapping tool for Article 17 reporting (produced by JNCC) to the 10km grid square distribution map presented in Figure 1. The alpha value for this habitat was 25km. For further details see the 2019 Article 17 UK Approach document.

Explanatory Notes

Habitat code: 6430

Field label	Note
2.2 Distribution map	In the UK, 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 Ireland 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. This is a species-rich plant community 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 grazing. These include 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. The habitat occurs sporadically in NI, but individual stands are small and fragmented. Furthermore, they tend to lack many of the species, particularly some of the above, that are characteristic of better-developed stands from the rest of the United Kingdom. There is very little information on the quality or extent of the habitat in NI, but it is known to occur on the limestone scarps and slopes of the Cliffs of Magho ASSI and in places in the adjoining Lough Navar Scarps and Lakes ASSI in Co Fermanagh. It has also been recorded in some locations along the edge of the Antrim Plateau (Knock Dhu and Sallagh Braes ASSI), and is thought to be present in a few places in the Mourne Mountains in Co Down.
2.3 Distribution map; Method used	Information on the distribution of the habitat comes from surveys undertaken by NIEA, either in-house or through contract. During the reporting period, NIEA staff have visited sites that are known to contain the habitat (e.g. Cliffs of Magho and Knock Dhu and Sallagh Braes ASSIs). Coverage of the habitat in the wider countryside is very limited, as the habitat often occurs in small, scattered stands on suitable rocks in the uplands.

Habitat code: 6430 Region code: ATL

Field label	Note
4.1 Surface area	The current range of the habitat is naturally limited by environmental factors, in particular slope/landform and geology. Although data on distribution is very limited, no loss in range has been recorded in the habitat on ASSIs since the condition assessment programme was introduced in 2002. In addition, due to its inaccessibility, the habitat is a robust one that is very difficult to damage or destroy.
4.5 Short term trend; Method used	Although there is a scarcity of data on the habitat, expert opinion would suggest that the range is unlikely to have declined over the short term. No evidence of loss has been noted at SACs and ASSIs that contain the feature, and the habitat is a robust one that is difficult to destroy. Hence judgement is stable for short term range.
5.2 Surface area	The surface area of this habitat has been estimated very approximately at around 15 ha. This is based largely upon expert judgement. The habitat 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 chance events, a situation exacerbated by past grazing pressure.

5.4 Surface area; Method used	The habitat is noted when regular condition assessment takes place on sites which contain it. However, there is virtually no data from outside the protected sites network. Hence reported as Based mainly on extrapolation from a limited amount of data
5.6 Short term trend; Direction	Regular monitoring of protected sites has not noted any decline in extent of hydrophilous tall herb fringe communities, and the habitat is very difficult to destroy or remove. Hence reported as Stable, but Based mainly on extrapolation from a limited amount of data.
5.10 Long term trend; Direction	The overall extent of the habitat is not known. Regular monitoring of protected sites has not noted any decline in extent of hyrophilous tall herb fringe communities, and the habitat is a robust one that is not easily destroyed or removed. However, expert opinion in the UK has suggested that the habitat may have declined in the past from adjoining slopes due to heavy grazing. Therefore, in the absence of definitive data, recorded as Unknown.
6.1 Condition of habitat	The condition of the habitat is largely unknown.
6.2 Condition of habitat; Method used	Virtually no data available to make an assessment.
7.1 Characterisation of pressures/ threats	Threats and pressures for hydrophilous tall herb fringe communities similar to those for calcareous rocky slopes and Siliceous rocky slopes - i.e. - Grazing - most of the habitat is out of the reach of grazing animals, occurring on inaccessible rock ledges. However, more accessible stands may be impacted by grazing as many of the characteristic species are both palatable to stock and very sensitive to defoliation. On the other hand, lack of grazing on these more accessible stands could result in encroachment by scrub and woodland. Recreational activities such as rock climbing may cause localised damage to vegetation, and could increase in the future. Invasive species - a number of species are, or could be invasive - for example non-native Cotoneaster. Uncontrolled burning in nearby habitats (e.g. dry heath) could spread to hydrophilous tall herb fringe communities. Air pollution - based on an assessment of the exceedance of relevant critical loads, air pollution is considered to be a potentially significant threat to the future condition of this habitat - the critical loads lower threshold is exceeded at the Cliffs of Magho ASSI (Critical load 5-15kg/N/ha/yr, with a predicted maximum of 10.08 kg/N/ha/yr). Climate change - is considered to be a potential 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.
7.2 Sources of information	Threats and pressures assessed from the most recent Common Standards Monitoring for Inland Rock and Scree habitats at protected sites (SACs and ASSIs), and expert judgement to assess pressures in the wider countryside. Threats based upon current pressures and expert judgement on future trends, particularly using information from the APIS website.
8.1 Status of measures	Although there is little definitive information about the habitat in NI, it is likely to benefit from improvements in the conservation management of other upland habitats. Hence, conservation measures associated with initiatives such as Interreg and the Environmental Farming Scheme (EFS) should assist in ensuring favourable management for the habitat, both within protected sites and the wider countryside. In addition, the Department is developing a road map to reduce atmospheric Nitrogen from agricultural sources, which may be a factor at some sites where the habitat occurs.
8.2 Main purpose of the measures taken	Measures aimed at reducing damaging impacts from current pressures - such as lack of management - and future threats. Hence this is reported as Maintain the structure and functions, including the status of typical species (related to 'Specific structure and functions').

8.3 Location of the measures taken	Measures are required both inside and outside SACs. Both Interreg and Rural Development Plan (RDP) funds are being used to develop Conservation Management Plans and to potentially implement management measures which will benefit the habitat at SACs which may contain the habitat. Several areas of the habitat across NI - both within designated sites and outside - may be entered into the Environment Farming Scheme (EFS), which aims to implement sympathetic management that should improve the condition of the habitat.
10.1 Range	There is no evidence of any changes in range for Hydrophilous tall herb fringe communities since 1988. Although data on distribution of the habitat is limited, no loss in range has been recorded in the habitat on SACs or ASSIs since the condition assessment programme was introduced in 2002. In addition, the current range of the habitat is naturally limited by environmental factors, particularly slope/landform and rock type, and the habitat is a robust one that is not easily destroyed. Range assessment for H8210 is therefore Favourable.
10.2 Area	There has been no evidence of loss of extent of Hydrophilous tall herb fringe communities from any of the protected sites at which it occurs since around the year 2000. The habitat is a robust one and it is difficult to envisage how it could be reduced in extent from inaccessible ledges. However, expert opinion in the UK suggests that the habitat could spread to adjoining slopes in the absence of grazing pressure, and it is therefore possible that it may have been more extensive over the longer time period since 1994. Hence, extent assessed as Unknown.
10.3 Specific structure and functions	CSM data for the SACs and ASSIs that contain the habitat show that the habitat here is in favourable condition. However, there is no accurate estimate of the total area of the habitat in NI, so it is doubtful if these data can be judged to be representative of the overall NI resource. This suggests a judgement of Unknown for the structure and function parameter for H6430.
10.4 Future prospects	Given the poor information on the extent and condition of the habitat across NI, and the uncertain future impacts of air pollution and climate change, future prospects are predicted as Unknown.
10.5 Overall assessment of Conservation Status	Range has been assessed as Favourable, with Extent, Structure and function Unknown. Future prospects are Unknown with climate change impacts currently unpredictable and atmospheric Nitrogen deposition still a threat. Hence an overall Unknown assessment.
11.1 Surface area of the habitat type inside the pSCIs, SCIs and SACs network	The habitat is not listed aa a feature at any SAC, although there may be fragmentary stands at some of the upland sites.
11.3 Surface area of the habitat type inside the network; Method used	The habitat has not been recorded from any SACs but small stands may be present at some. Hence reported as Insufficient or no data available.
11.4 Short term trend of habitat area in good condition within the network; Direction	No data available - hence unknown.
11.5 Short term trend of habitat area in good condition within the network; Method used	No data available - hence Insufficient or no data available.