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:

H1210 - Annual vegetation of drift lines

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	**1210 - Annual vegetation of drift lines**

2. Maps

2.1 Year or period	2013-2018
2.3 Distribution map	Yes
2.3 Distribution map Method used	Based mainly on extrapolation from a limited amount of 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	Data on aerial Nitrogen deposition taken from Air Pollution Information System website - http://www.apis.ac.uk/ Cooper, E.A., Crawford, I., Malloch, A.J.C. & Rodwell, J.S. (1992). Coastal vegetation survey of Northern Ireland. Lancaster, Lancaster University Environment and Heritage Service, Belfast. Northern Ireland Habitat Action Plan - Coastal Vegetated Shingle - March 2005 NIEA. Internal Condition Assessment Reports (various sites and years). Rodwell, J.S. (2000). British Plant Communities. Volume 5, Maritime Communities and Vegetation of Open habitats. Cambridge: Cambridge University Press 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. JNCC (1997). Coasts and seas of the United Kingdom, Region 17 Northern Ireland. Coastal Directories Series Martin, J.R., Daly, O.H. and Devaney F.M. (2017) Survey and assessment of vegetated shingle and associated habitats at 30 coastal sites in Ireland. Irish Wildlife Manuals, No. 98. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, Ireland.

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
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 0.2
5.3 Type of estimate	Best estimate		
5.4 Surface area Method used	Based mainly on extrapolation from a limited amount of 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 extrapolation from a limited amount of data		
5.9 Long-term trend Period			
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	0.15	Maximum	0.15
	b) Area in not-good condition (km²)	Minimum	0	Maximum	0
	c) Area where condition is not known (km²)	Minimum	0.05	Maximum	0.05
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	2013-2018				
6.4 Short-term trend of habitat area in good condition Direction	Stable (0)				
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

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6.7 Typical species Method used

6.8 Additional information

7. Main pressures and threats

7.1 Characterisation of pressures/threats

Pressure	Ranking
Modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defences or coastal protection works and infrastructures) (F08)	H
Sea-level and wave exposure changes due to climate change (N04)	H
Extraction of minerals (e.g. rock, metal ores, gravel, sand, shell) (C01)	M
Development and maintenance of beach areas for tourism and recreation incl. beach nourishment and beach cleaning (F06)	M
Sports, tourism and leisure activities (F07)	M

Threat	Ranking
Modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defences or coastal protection works and infrastructures) (F08)	H
Sea-level and wave exposure changes due to climate change (N04)	H
Extraction of minerals (e.g. rock, metal ores, gravel, sand, shell) (C01)	M
Development and maintenance of beach areas for tourism and recreation incl. beach nourishment and beach cleaning (F06)	M
Sports, tourism and leisure activities (F07)	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, but none yet 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		

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Adapt/manage extraction of non-energy resources (CC01)
Reduce impact of outdoor sports, leisure and recreational activities (CF03)
Manage changes in hydrological and coastal systems and regimes for construction and development (CF10)
Implement climate change adaptation measures (CN02)

8.6 Additional information

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 0.15
11.2 Type of estimate	Best estimate
11.3 Surface area of the habitat type inside the network Method used	Complete survey or a statistically robust estimate
11.4 Short-term trend of habitat area in good condition within the network Direction	Stable (0)

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11.5 Short-term trend of habitat area in good condition within network Method used	Complete survey or a statistically robust estimate
11.6 Additional information	

12. Complementary information

12.1 Justification of % thresholds for trends	
12.2 Other relevant information	

Distribution Map

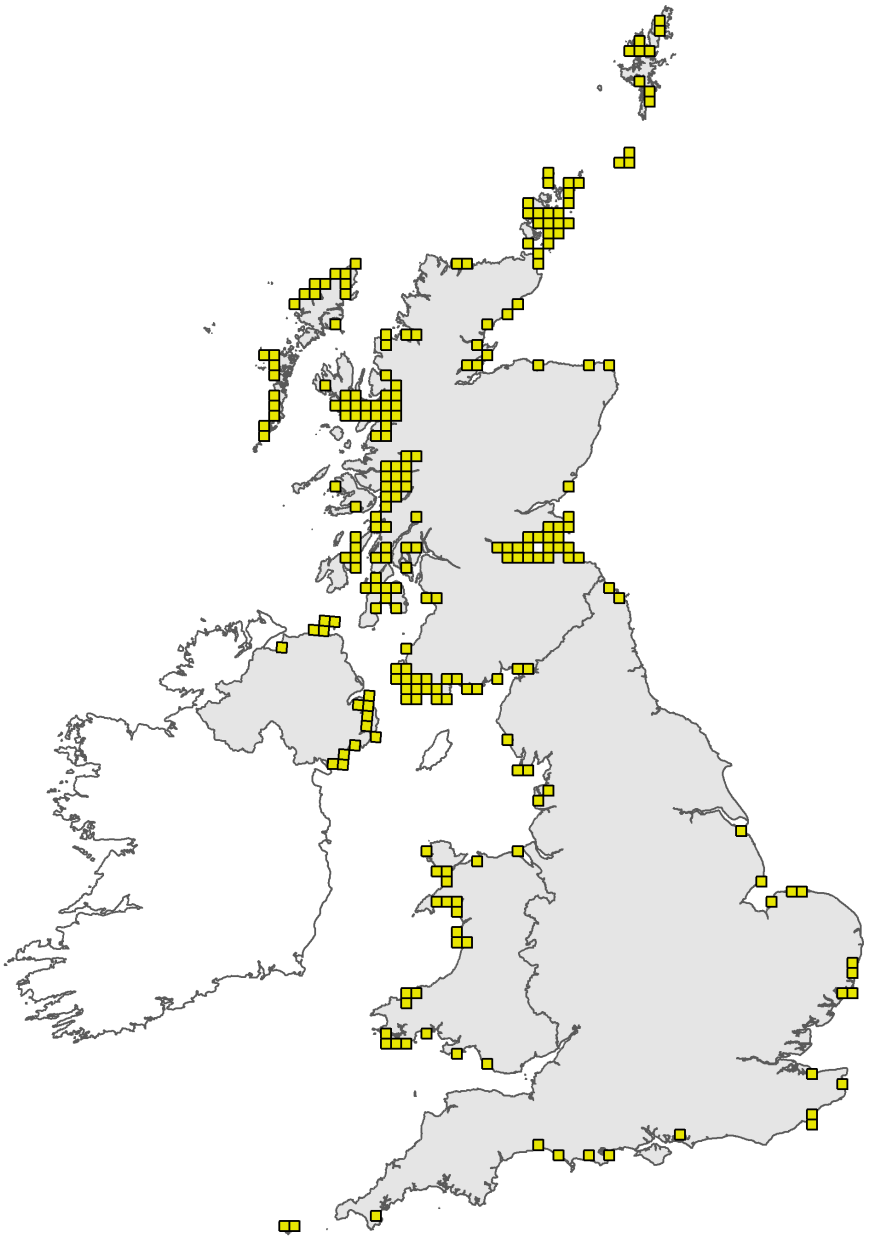

Figure 1: UK distribution map for H1210 - Annual vegetation of drift lines. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

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

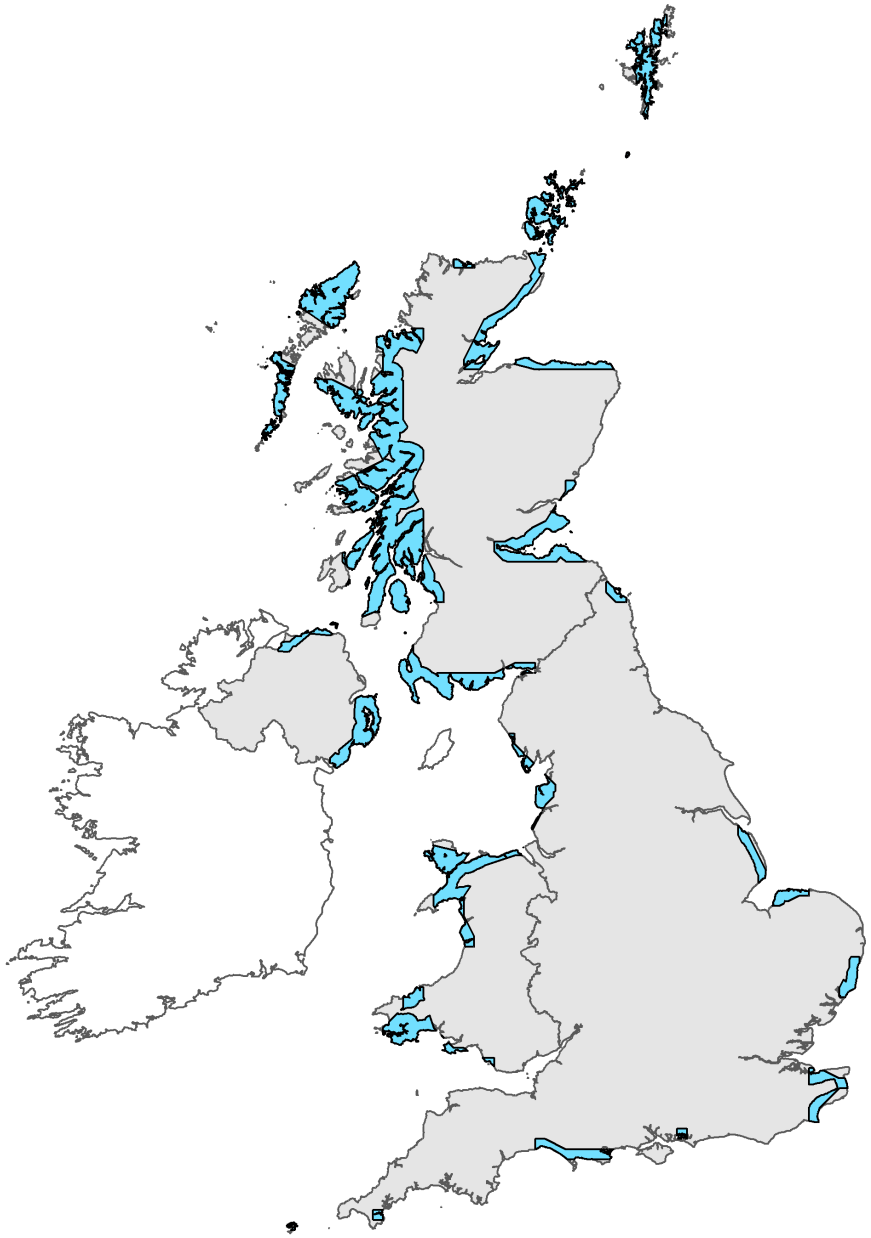

Figure 2: UK range map for H1210 - Annual vegetation of drift lines. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

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: 1210

Field label	Note
2.2 Distribution map	In the United Kingdom this Annex 1 habitat corresponds to strandline communities identified in the National Vegetation Classification (NVC) as types SD2 Cakile maritima-Honckenya peploides and SD3 Matricaria maritima-Galium aparine. Although NVC coverage did not extend to Northern Ireland, it is possible to ascribe most, if not all, of NI plant communities to an appropriate NVC community. This is particularly true for coastal communities, many of which were surveyed by Lancaster University (under contract to EHS) at a range of coastal sites around NI in the early 1990s. \Annual vegetation of drift lines\ tends to occur as narrow, linear stands that are widely scattered along the coastline. The majority of species associated with the habitat are characteristic of coastal sites that receive large amounts of organic material - generally seaweed and other debris that have been deposited above the high water mark by storm events. As a result, the habitat has an ephemeral quality to it, and can vary in extent and vigour from year to year.
2.3 Distribution map; Method used	The maps are based upon the NI Coastal Vegetation Survey (1992) with subsequent fieldwork to confirm presence in these locations, plus other known locations.

Habitat code: 1210 Region code: ATL

Field label	Note
4.1 Surface area	Three SACs include this habitat as a selection feature. Given the extensive nature of the habitat around Strangford Lough, the presence of both of the relevant NVC communities (SD2 and SD3), and the abundance of Sea-beet Beta vulgaris ssp. maritimus (which gives the community its regional distinctiveness), the lough represents an important example of the habitat in NI, and contributes to the overall geographical coverage of the habitat within the UK. In addition, SD3 is found along the north coast at Rathlin and Giant's Causeway. The latter areas are of particular significance because of the presence of the northern Mertensia maritima. However, although the habitat is likely to occur around a significant proportion of the NI coast, there is little information available outside the protected sites network. The minimum favourable reference area for NI has been estimated as 0.2.km2. This is based upon a partial survey from 1992 NI Coastal Survey and subsequent fieldwork by NIEA staff.
5.2 Surface area	There are no comprehensive data available for the extent of this habitat type in NI. The figure provided is an estimate based on expert opinion and known sites. As this vegetation is ephemeral in nature, the location and extent of this habitat at both site level and in NI as a whole will vary considerably from year to year, and even the largest sites support less than 10 ha of this habitat.
5.6 Short term trend; Direction	No known losses in extent over the period.
6.1 Condition of habitat	This is a habitat that does generally not require active management. Condition data for SACs and ASSIs with this feature record all sites to be in favourable condition. The condition of the resource across NI is not well-known, as the habitat is widespread along the coast outside of the protected sites network. However, the habitat is a robust one that depends upon annual accumulation of drift seaweed. No major impacts noted or predicted over the extent of the habitat in NI.
6.2 Condition of habitat; Method used	Data taken from the most recent Common Standards Monitoring on SACs and ASSIs that contain the habitat.

7.1 Characterisation of pressures/ threats	Current and historic factors impacting on the driftline are primarily related to sediment availability, beach management and disturbance. Human disturbance such as trampling, beach cleaning and recreational use can limit the extent of this type of habitat. The habitat is also vulnerable to reductions in input of sediment, often caused by interruptions of the sediment supply. The health and ongoing development of a shingle feature depend on a continuing supply of shingle. This may occur sporadically as a response to storm events rather than continuously. It is frequently lacking owing to interruption of coastal processes by coast defence structures, etc. In the future, sediment movement - and associated supply of driftline material - will clearly be impacted in a major way by climate change and associated sea level rise and increased storminess. Not generally sensitive to atmospheric Nitrogen deposition, as many of the associated species depend upon high levels of Nitrogen from annual accumulations of drift seaweed.
7.2 Sources of information	Threats and pressures information comes from Common Standards monitoring of the habitat at designated sites, plus expert knowledge acquired from survey of the habitat on the NI coast.
10.1 Range	There is little information on the extent or distribution of the habitat in NI. However, given its ecological requirements (i.e. a supply of organic material washed up by storm events), it is unlikely that there have been significant reductions in range since 1994. There is no evidence of loss in range from known sites since 1994; therefore current range in NI judged favourable.
10.2 Area	No evidence of loss in area from the major sites for the habitat in NI. However, the habitat is not well-known in NI and is likely to occur around a significant part of the NI coast. Although it is unlikely that the overall range of the habitat has declined since 1994, it is not possible to state the same about the habitat extent. Therefore current area judged unknown.
10.3 Specific structure and functions	Habitat in favourable condition at designated sites; however, there are likely to be significant stands of the habitat outside of designated areas that are not covered by CSM. Despite this, given the relatively robust nature of the habitat - i.e. dependent upon driftline material accumulated from storm events - structure and function in NI are judged favourable.
10.4 Future prospects	Future prospects uncertain in the light of potential impacts of sea level rise and general lack of knowledge on the distribution of the habitat.
10.5 Overall assessment of Conservation Status	Range and structure and function are both favourable. However, data are lacking on the full extent of the habitat, and the potential impacts of sea-level rise; hence overall conservation status unknown.
11.1 Surface area of the habitat type inside the pSCIs, SCIs and SACs network	Area roughly estimated at 15ha; c. 13ha for Strangford Lough; less than 1 ha each for Rathlin Island and North Antrim Coast.