

**European Community Directive
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 :

**H2150: Atlantic decalcified fixed dunes (*Calluno-
Ulicetea*)**

Please note that this is a section of the report. For the complete report visit <http://www.jncc.gov.uk/article17>

Please cite as: Joint Nature Conservation Committee. 2007. *Second Report by the UK under Article 17 on the implementation of the Habitats Directive from January 2001 to December 2006*. Peterborough: JNCC. Available from: www.jncc.gov.uk/article17

H2150 Atlantic decalcified fixed dunes (*Calluno-Ulicetea*)

Audit trail compiled and edited by JNCC and the UK statutory nature conservation agencies Coastal Lead Coordination Network.

This paper and accompanying appendices contain background information and data used to complete the standard EC reporting form (Annex D), following the methodology outlined in the commission document "Assessment, monitoring and reporting under Article 17 of the Habitats Directive, Explanatory Notes and 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 & correspondence with NVC and other habitat types

Table 1.1.1 provides a summary description of H2150 and its relations with UK classifications.

This habitat type occurs on mature, stable dunes where the initial calcium carbonate content of the dune sand is low. The surface soil layers rapidly lose their remaining calcium carbonate through leaching, and become acidified. The Annex I types H2150 Atlantic decalcified fixed dunes (*Calluno-Ulicetea*) and H2140 Decalcified fixed dunes with *Empetrum nigrum* are similar in composition. Within the UK H2140 Decalcified fixed dunes with *Empetrum nigrum* has a more restricted distribution, being confined to Scotland, in relatively wetter and more base-poor conditions. H2150 Atlantic decalcified fixed dunes is more widespread, tolerating drier and warmer conditions. At some Scottish sites it is difficult to distinguish between these two Annex I habitat types, as the vegetation forms a continuous spectrum of variation within complex habitat mosaics. Indeed, they may succeed one another at the same location over time.

The most characteristic community is dune heath in which heather *Calluna vulgaris* is found in combination with sand sedge *Carex arenaria*. The main species present vary considerably throughout the UK. Bell heather *Erica cinerea* is abundant in dune heath on west coast sites, but much scarcer in the east, where heather *Calluna vulgaris* predominates. Associated with the heathland in drier conditions, and forming transitions with it, is acidic dune grassland. This is often a precursor to heath development and in these drier conditions is usually characterised by a combination of the fine-leaved grasses such as sheep's-fescue *Festuca ovina* and common bent *Agrostis capillaris*, with sand sedge *Carex arenaria*. On very nutrient-poor sand that is also subject to severe drought the heath tends to be dominated by lichens, which form a continuous grey carpet over the ground. In the UK this Annex I type corresponds to the following NVC types:

- H1d *Calluna vulgaris* – *Festuca ovina* heath, *Carex arenaria* sub-community
- H11a *Calluna vulgaris* – *Carex arenaria* heath, *Erica cinerea* sub-community
- H11c *Calluna vulgaris* – *Carex arenaria* heath, species-poor sub-community
- H10 *Calluna vulgaris* – *Erica cinerea* heath p.p.

Other dry heath types occurring on coastal sand dunes, especially H10 *Calluna vulgaris* – *Erica cinerea* heath in Scotland, may also be referable to this Annex I type.

Grey hair-grass *Corynephorus canescens* is a prominent feature of the small number of fixed, decalcified dune systems in eastern England. This species is more typical of the dry acidic dunes of the Baltic and H2330 Inland dunes with open *Corynephorus* and *Agrostis* grasslands, and represents an interesting outlier in the UK of a dune type much more widespread on the continent.

At most sites at which Atlantic decalcified fixed dunes (*Calluno-Ulicetea*) vegetation occurs, it forms a mosaic with other Annex I habitat types. Fixed dune vegetation tends to occur on the larger dune systems, which have the width to allow it to develop.

Atlantic decalcified fixed dunes (*Calluno-Ulicetea*) are well represented in the UK and there is considerable variation in the vegetation of this habitat type, both between northern and southern sites and between sites on the east and west coasts. A large proportion of the area of the national resource occurs on a relatively small number of sites, the largest of which (Morrich More) is in Scotland.

Atlantic decalcified fixed dunes (*Calluno-Ulicetea*) are widespread in Europe, and the UK lies at the centre of the north – south range of this habitat type.

Table 1.1.1 Summary description of habitat H2150 and its relations with UK vegetation/habitat classifications.

Classification	Correspondence with Annex I type	Comments
NVC	In the UK this Annex I type corresponds to the following NVC types: <ul style="list-style-type: none"> • H1d <i>Calluna vulgaris</i> – <i>Festuca ovina</i> heath, <i>Carex arenaria</i> sub-community • H11a <i>Calluna vulgaris</i> – <i>Carex arenaria</i> heath, <i>Erica cinerea</i> sub-community • H11c <i>Calluna vulgaris</i> – <i>Carex arenaria</i> heath, species-poor sub-community • H10 <i>Calluna vulgaris</i> – <i>Erica cinerea</i> heath p.p. 	Only H10 communities occurring on coastal sand dunes are referable to this habitat.
BAP priority habitat type	Coastal sand dunes	Covers a much wider zone than H2510. Coastal sand dunes in the UK comprise the complete sand dune complex, including in addition white dunes, grey dunes, dune heath, and dune slack communities.

2. Range ^{2.3}

2.1 Current range

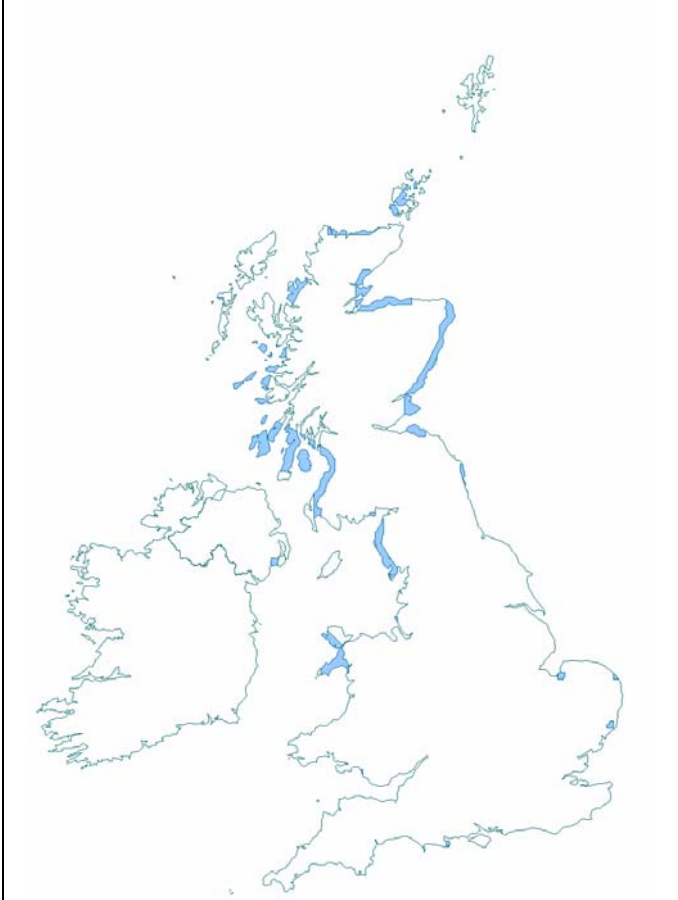
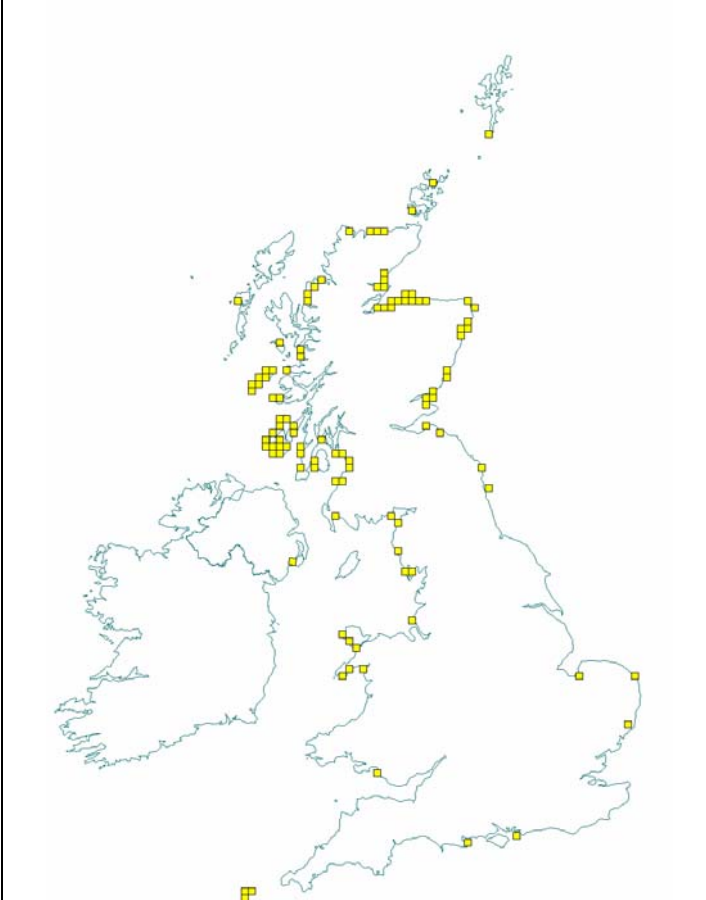
Range surface area ^{2.3.1}: 1,075 km²

Date calculated ^{2.3.2}: May 2007

Quality of data ^{2.3.3}: Moderate

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 hull software used to calculate the surface area of the range could only be clipped to a 10km strip width along the coast. The geomorphological and physical factors influencing the distribution of the habitats are likely to occur only within a far smaller distance of the coastline (at most 1km) and hence the area value has been reduced by a factor of 10 to give a more realistic value for the surface area of the range for these habitats.

Maps 2.1.1 and 2.1.2 show the range and distribution of H2150 in the UK. The map shows the records for NVC types H11a, H11c, H1d and coastal occurrences of H10, together with Special Areas of Conservation supporting this Annex I type.

Map 2.1.1 Habitat range map ^{1.1} for H2150	Map 2.1.2 Habitat distribution map ^{1.2} for H2150
	
<p>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)</p>	<p>Each yellow square represents a 10x10km square of the National Grid and shows the known and/or predicted occurrence of this habitat 10-km square count: 105</p>

See Section 7.1 for map 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

There is no evidence to suggest a significant decline in the broad range of H2150 in recent or historical times.

2.3 Favourable reference range

Favourable reference range^{2.5.1}: **1,075 km²**

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, 1,075 km², has been set as the favourable reference area.

H2150 is found on acidic sands on the UK coast. Its potential area is therefore limited by the geomorphological conditions which have led to the presence of acidic sands. While the range covers most of Scotland it is rather scarce in England and Wales, raising a concern that site loss in England could lead to a decline in range.

2.4 Conclusions on range

Conclusion^{2.6.i}: **Favourable**

There is no evidence that the range of this habitat should be considered unfavourable: there is no evidence to suggest decline. It is therefore assumed that the range is stable and still occupies most or all of its potential natural range, and thus most or all its favourable reference range.

3. Area^{2.4.}

3.1 Current area

Total UK extent^{2.4.1}: **9 km²**

Date of estimation^{2.4.2}: **May 2007**

Method^{2.4.3}: **Moderate**

Quality of data^{2.4.4}: **3 = ground based survey**

Table 3.1.1. provides information on the area of H2150 in the UK. The total area in the following table is 500 ha less than the area estimated as covered by SACs.

Table 3.1.1 Area of H1210 in the UK.

	Area (ha)	Method ^{2.4.3}	Quality of data ^{2.4.4}
England	190	3	Moderate
Scotland	550	3	Moderate
Wales	40	3	Poor
Northern Ireland	120	1	Moderate
Total UK extent^{2.4.1}	900	3	Moderate

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**

There may have been some decline, especially in the more populated areas (i.e. the English coast) but it is preserved in Scotland. It is believed that the area has remained broadly stable since 1994.

3.3 Favourable reference area

Favourable reference area^{2.5.2}: **9 km²**

Section 3.2.2.3 of 'Assessing Conservation Status: UK Approach' sets out how favourable reference area estimates have been determined in the UK. Based on this approach, the current extent, 9 km², has been set as the favourable reference area. Reasons for this are discussed below.

NVC type H11a and H11c are restricted to acidic sands (pH of less than 5), and only develops on stretches of coastal dunes which have formed by the accretion of quartzitic material or where more calcareous deposits have been eluviated (Rodwell, 1991). Hence H2150 is restricted to locations where geomorphological conditions have allowed the development of acid sand. Unlike H2140, it is not restricted to Scotland and is found on all UK coasts, although the wetter climatic condition of the north west are more favourable to this habitat (Rodwell, 1991).

H2150 is well represented along the Scottish coast, but it is scarcer in England and Wales. There is a concern regarding the fragmentation of the areas in England, as the sites where H2150 is found are quite isolated from one another.

3.4 Conclusions on area covered by habitat

Conclusion^{2.6.ii}: **Favourable**

There has been a limited decline, and the area has now stabilised. Much of the potential natural area remains occupied. There is no evidence that the area of this habitat should be considered unfavourable: it is assumed that the area is stable and still occupies most or all of its potential natural area, and thus most or all its favourable reference area.

4. Specific Structures and Functions (including typical species)

4.1 Main pressures ^{2.4.10}

The following factors affecting coastal sand dunes are covered in the *Habitat Action Plan for Coastal sand dunes* (UKBAP website), making allowance for those likely to be relevant to H2150. The main pressures affecting H2150 are:

- **Grazing (101 Modification of cultivation practices; 140 Grazing; 141 Abandonment of pastoral systems)**

In the absence of human interference, most stable dunes, with the exception of those experiencing severe exposure, would develop into scrub and woodland. The preponderance of grassland and heath vegetation on British dunes is due to a long history of grazing by livestock. Continued grazing is normally necessary to maintain the typical fixed dune communities, but over-grazing, particularly when combined with the provision of imported feedstuffs, can have damaging effects. A more widespread problem is under-grazing, leading to invasion by coarse grasses and scrub, though rabbits are locally effective in maintaining a short turf. Parts of some stabilised dune systems have been entirely converted to agricultural use, resulting in almost total loss of the conservation interest.

- **Recreation (622 walking, horseriding and non-motorised vehicles; 623 motorised vehicles; 702 air pollution; 601 golf course)**

Recreation is a major land use on sand dunes. Many dune systems are used extensively by holiday-makers, mostly on foot but also for parking cars and in some cases for driving four-wheel-drive vehicles or motorcycles. Moderate pressure by pedestrians may cause little damage, and may even help to counteract the effects of abandonment of grazing. However, excessive pedestrian use, as on routes between car parks and beaches, and vehicular use in particular, have caused unacceptable erosion on many dune sites. Many dune systems also support one or more golf courses. Here much of the original vegetation may be retained in the rough, but the communities of the fairways, and particularly the greens and tees, are often severely modified by mowing, fertilising and re-seeding. Fragmentation of dune systems by golf courses makes grazing management much more difficult.

- **Sea defences and stabilisation (871 sea defense or coast protection works; 302 removal of beach materials)**

Many dune systems are affected by sea defence works or artificial stabilisation measures such as sand fencing and marram planting. These practices are particularly prevalent on the more developed coastlines where drifting sand may be perceived as a threat to urban or holiday developments. While carefully applied dune management measures can help to counteract severe erosion which may threaten the existence of a dune, engineered defence systems usually reduce the biodiversity inherent in the natural dynamism of dune systems, and may cause sediment starvation down-drift. UK dunes as a whole suffer from over-stabilisation and poor representation of the mobile phases.

- Other human influences (**400 Urbanised areas, human habitation; 410 Industrial or commercial areas; 422 disposal of industrial waste; 421 disposal of household waste**)

Sand dunes have also been affected in the past by housing developments, industrial development, waste tips on or adjacent to them, fly tipping and sand extraction. Indirect effects on dunes include atmospheric nutrient deposition, and coastal squeeze due to rising sea levels and increased storminess. The potential for dredging and marine aggregate extraction, through the disruption of coastal processes, to have cumulative and long-term effects on sand dunes is an area for further investigation.

- Forestry (**162 Artificial planting**)

Afforestation of dunes is not as prevalent in Britain as it is in parts of continental Europe, but in a few locations it has had a major effect on large areas of dune landscape. Some sites hold large conifer plantations which have the effect of suppressing the dune vegetation communities and lowering the water table. However, both routine fellings and permanent removal of conifers have shown that vegetation close to the original can be restored in a relatively short time.

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

Based on an assessment of the exceedence of relevant critical loads (see Technical note III), air pollution is not considered to be a potentially significant pressure to the structure and function of this habitat. However, the HAP for Coastal sand dunes considers atmospheric nutrient deposition as a factor affecting the habitat.

4.2 Current condition

4.2.1 Common Standards Monitoring condition assessments

Condition assessments based on Common Standards Monitoring (see <http://www.jncc.gov.uk/page-2199>) provide a means to assess the structure and functioning of H2150 in the UK. The following attributes were examined for all CSM assessments relevant to the habitat:

- Habitat extent,
- Vegetation structure: range of zones of vegetation,
- Vegetation structure,
- Vegetation composition,
- Other negative indicators (negative indicator species and signs of disturbance).

SAC condition assessments

Table 4.2.1 and Map 4.2.1 summarise the Common Standards Monitoring condition assessments for UK SACs supporting habitat H2150. 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:

- less than 1% of the area and 11% of the number of assessments was Favourable;
- less than 1% of the total UK habitat area was in Favourable condition.

Table 4.2.1 Common Standards Monitoring condition assessment results for UK SACs supporting H2150. See notes below table for details. Information on the coverage of these results is given in Section 7.2.

Condition	Condition sub-categories	Area (ha)	Number of site features
Unfavourable	Declining	728	2
	No change	495	3
	Unclassified		
	Recovering	99	3
	Total	1,323	8
	<i>% of all assessments</i>	100%	89%
	<i>% of total UK resource</i>	93%	unknown
Favourable	Maintained	02	1
	Recovered		
	Unclassified		
	Total	02	1
	<i>% of all assessments</i>	0%	11%
	<i>% of total UK resource</i>	0%	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 from 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.

SSSI/ASSI condition assessments

SSSI/ASSIs Common Standards Monitoring condition assessments are not relevant as most or all the resource is on SACs.

Current Condition of H2150 based on Common Standard Monitoring 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
<p>Key</p> <p><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</p> <p><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</p> <p><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</p> <p><u>Transparent = SAC feature not present</u>, i.e. the square does not</p>	<p>Key*</p> <p><u>Green</u> – 80 – 100% of assessed features on 10km square are Favourable</p> <p><u>Yellow</u> - 50 – 80% of assessed features on 10km square are Favourable</p> <p><u>Orange</u> - 20 – 50% of assessed features on 10km square are Favourable</p> <p><u>Red</u> - 0 – 20% of assessed features on 10km square are Favourable</p> <p>*This is the same key as was used for JNCC CSM Report 2006</p>	

contain any SAC features of this habitat type	
---	--

4.3 Typical species

Typical species^{2.5.3}: **None used**
Typical species assessment^{2.5.4}: **Not applicable**

Referable NVC types are heath and therefore the constituent species are not limited to the coast. Assessment of trends is not a good indication of the condition of this habitat.

4.4 Conclusions on specific structures and functions (including typical species)

Conclusion^{2.6.iii}: **Unfavourable – Bad and deteriorating**

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 is in Unfavourable condition.

CSM site condition assessments that a large (nearly 100%) part of this habitat is expected to remain in Unfavourable condition, of which a substantial area (55%) is expected to be ‘declining’. In terms of UK resource, 93% is considered Unfavourable and 50% declining. The data shows that more than 25% of the habitat is Unfavourable, that the necessary structures and functions for the habitat are not in place and that significant deteriorations/pressures exist.

5. Future Prospects

5.1 Main factors affecting the habitat

- Protection within designated sites

Around 93% of the resource of H2150 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. A significant proportion of the resource of this habitat also lies within the SSSI/ ASSI series where similar management measures are in place.

- UK BAP

The habitat is covered by the *Coastal sand dunes* action plan under the UK Biodiversity Action Plan (see <http://www.ukbap.org.uk>), as well as under country and local biodiversity action plans and strategies, with targets to maintain, improve, restore and expand the resource.

5.1.2 Main future threats^{2.4.1}

The most obvious major future threats to H2150 are listed below, several of which are referred to in Section 4.1.

- Grazing (**101 Modification of cultivation practices; 140 Grazing; 141 Abandonment of pastoral systems**)
- Recreation (**622 walking, horseriding and non-motorised vehicles; 623 motorised vehicles; 702 air pollution; 601 golf course**)
- Sea defences and stabilisation (**871 sea defense or coast protection works; 302 removal of beach materials**)
- Other human influences (**400 Urbanised areas, human habitation; 410 Industrial or commercial areas; 422 disposal of industrial waste; 421 disposal of household waste**)
- Air pollution (**702 air pollution**)
- Climate change

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 CO2 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.

5.2 Future condition (as regards range, area covered and specific structures and functions)

5.2.1 Common Standards Monitoring condition assessments

The Common Standards Monitoring condition assessments reported in Sections 4.2.1-2. provide a basis to predict the potential future condition of H2150 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 H2150 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:

- 8% of the area and 44% of the number of assessments fall within the future-Favourable category;
- at least 7% of the total UK habitat area falls within the future-Favourable category.

Table 5.2.1 Predicted future condition of UK SACs supporting H2150 based on current Common Standards Monitoring 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	728	2
	Unfavourable no change	495	3
	Unfavourable unclassified		
	Total	1,223	5
	<i>% of assessments</i>	92%	56%
	<i>% of total UK extent</i>	86%	Unknown
Future-Favourable	Favourable maintained	02	1
	Favourable recovered		
	Unfavourable recovering	99	3
	Favourable unclassified		
	Total	101	4
	<i>% of assessments</i>	08%	44%
	<i>% of total extent</i>	7%	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:

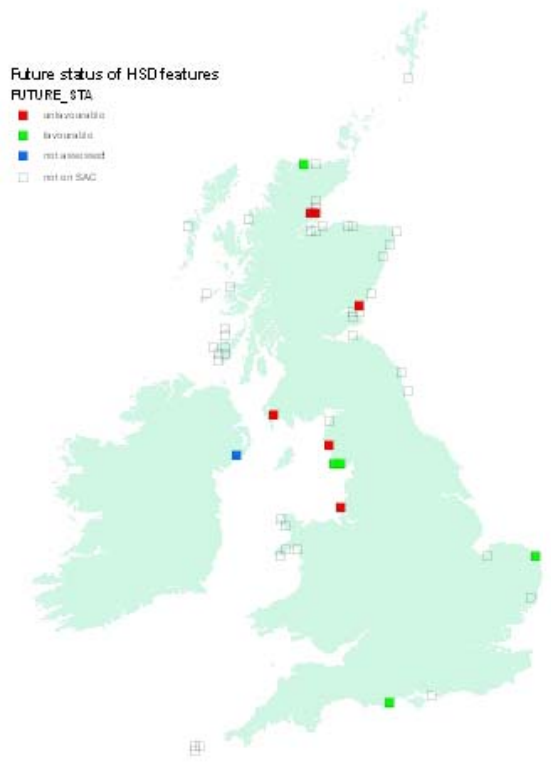
- the Unfavourable-recovering condition assessments will at some point in the future become Favourable.
- all Unfavourable-unclassified sites will remain Unfavourable, which is probably overly pessimistic;
- sympathetic management will be sustained on sites already classified as Favourable and these 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

SSSI/ASSIs Common Standards Monitoring condition assessments are not relevant as most or all the resource is on SACs.

Predicted Future Condition of H2150 based on Common Standard Monitoring 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
	<p>Not applicable</p>	<p>Not applicable</p>

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 10km square are Favourable
Yellow - 50 – 80% of assessed features on 10km square are Favourable
Orange - 20 – 50% of assessed features on 10km square are Favourable
Red - 0 – 20% of assessed features on 10km square are Favourable
 *This is the same key as was used for JNCC CSM Report 2006

5.3. Conclusions on future prospects (as regards range, area covered and specific structures and functions)

Conclusion^{2.6.iv}: **Unfavourable – Bad and deteriorating**

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.

CSM site assessment data predict that 92% by area (86% by number) of the UK SACs supporting habitat H1210 will remain Unfavourable in future – 1,223 ha, 86% of the total UK resource. A substantial area (728 ha, 55% of the total UK resource) is considered to be ‘Unfavourable declining’ and overwhelms the area considered to be ‘Unfavourable recovering’ (99 ha). The UK BAP, working towards enhancing future viability, has targets to bring the dune systems into Favourable or recovering condition by 2010 while maintaining the current extent. Despite progress already made and some additional recovery once further conservation measures are put into place, the expectation is that more than 25% of the habitat will be in Unfavourable condition in the next 10-15 years.

6. Overall conclusions and judgements on conservation status

Conclusion^{2.6}: **Unfavourable – Bad and deteriorating**

On the basis of the Structure and Function and Future Prospects assessments, the overall conclusion for this habitat feature is 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.	3
Area covered by habitat type within range	Favourable	Current extent is stable and not less than the favourable reference area.	3
Specific structures and functions (including typical species)	Unfavourable – Bad and deteriorating	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 declining than improving.	1
Future prospects <small>(as regards range, area covered and specific structures and functions)</small>	Unfavourable – Bad and deteriorating	Habitat prospects over next 12-15 years considered to be bad, with severe impact from threats expected and long term viability not assured Further measures are required to address threats to future range, extent and structure and function for the overall UK resource. .	1
Overall assessment of conservation status	Unfavourable – Bad and deteriorating	Two categories are Unfavourable – Bad and deteriorating’ with a high degree of confidence in judgement.	1

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

7. Annexed Material (including information sources used 2.2)

7.1. References

Air Pollution Information System 2004. www.apis.ceh.ac.uk

DARGIE, T.C.D. 1998. Sand dune vegetation survey of Scotland: Inner Hebrides. *Scottish Natural Heritage Research, Survey and Monitoring Report* No. 124.

DARGIE, T.C.D. 2000. *Sand Dune Vegetation Survey of Scotland: National Report*. Scottish Natural Heritage, Battleby.

DARGIE, T.C.D. 2001. Sand dune vegetation survey of Scotland: East Coast. *Scottish Natural Heritage Research, Survey and Monitoring Report* No. 179.

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

JACKSON, D.L & MCLEOD, C.R (eds.) 2002. Handbook on the UK status of EC Habitats Directive interest features: provisional data on the UK distribution and extent of Annex I habitats and the UK distribution and population size of Annex II species. *JNCC Report*, No. **312**. Version 2. www.jncc.gov.uk/page-2447

JOINT NATURE CONSERVATION COMMITTEE 2005. *Common Standards Monitoring (CSM)*. Joint Nature Conservation Committee, Peterborough www.jncc.gov.uk/page-2217

MACLEOD, C.R. 2004. Barry Buddon. Unpublished report.

MCLEOD, C.R, YEO, M, BROWN, A.E, BURN, A.J, HOPKINS, J.J, & WAY, S.F (eds.) 2008. *The Habitats Directive: selection of Special Areas of Conservation in the UK*. 2nd edn. Joint Nature Conservation Committee, Peterborough www.jncc.gov.uk/SACselection

UKBAP website; www.ukbap.org.uk

Map data sources

British Plant Communities.1995. Volumes 1-5. Cambridge University Press, Cambridge

JNCC International Designations Database. Joint Nature Conservation Committee

Paul Corbett (pers. comm.) 2000. Environmental Heritage Service

Sand Dune Database. 1995. Joint Nature Conservation Committee

Sand dune vegetation survey of Scotland. Scottish Natural Heritage

7.2 Further information on Common Standards Monitoring 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)	10
Number of SACs with CSM assessments (b)	9
% of SACs assessed (b/a)	90
Extent of feature in the UK – hectares (c)	1,418
Extent of feature on SACs – hectares (d)	1,418
Extent of features assessed – hectares (e)	1,325
% of total UK hectarage on SACs (d/c)	100
% of SAC total hectarage that has been assessed (e/d)	93
% of total UK hectarage that has been assessed (e/c)	93

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 from 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)	10	19%
Current – Favourable (green)	1	2%
On SAC but not assessed (blue)	1	2%
Not on SAC (transparent)	42	78%
Total Number of 10km squares (any colour)	54	
Future – Unfavourable (red)	6	11%
Future – Favourable (green)	5	9%