

**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:

**H2140 - Decalcified fixed dunes with *Empetrum
nigrum***

SCOTLAND

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 (Scotland information only) |
| 1.2 Habitat code | 2140 - Decalcified fixed dunes with <i>Empetrum nigrum</i> |

2. Maps

| | |
|----------------------------------|--|
| 2.1 Year or period | 1987-2008 |
| 2.3 Distribution map | Yes |
| 2.3 Distribution map Method used | Complete survey or a statistically robust estimate |
| 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 | <p>https://www.environment.gov.scot/our-environment/habitats-and-species/habitat-map-of-scotland/</p> <p>The Sand Dune Vegetation Survey of Scotland, Tom Dargie 1994-2000 National Report</p> <p>The Sand Dune Vegetation Survey of Scotland 2012 SNH Natural Spaces dataset Janine M Morris, Site Condition Monitoring of Coastal Habitats. (National Contract, Year 2009-2010) and Site Condition Monitoring of Coastal Habitats (National Contract, Year 2010-2011). Contract No: 25639</p> <p>Angus, S. (2008). Outline planning permission for golf course and resort development on land at Menie House, Balmedie, Aberdeen. Principal precognition of Stewart Angus on behalf of Scottish Natural Heritage (DPEA REFERENCE CIN/ABS/001)</p> <p>http://jncc.defra.gov.uk/pdf/Article17Consult_20131010/H2140_SCOTLAND.pdf</p> |

4. Range

| | |
|--|--|
| 4.1 Surface area (in km ²) | |
| 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 | <p>a) Area (km²)</p> <p>b) Operator</p> <p>c) Unknown No</p> <p>d) Method</p> |
| 4.11 Change and reason for change in surface area of range | <p>Improved knowledge/more accurate data</p> <p>The change is mainly due to: Improved knowledge/more accurate data</p> |
| 4.12 Additional information | Final data has become available from translation of the Sand Dune Survey of |

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Scotland to Annex I habitats as well as some other NVC surveys and this has given a complete picture of the distribution of this habitat in Scotland. For this habitat differences to previously reported distribution are significant. these reasons are due to more accurate translation from underlying NVC survey data and not real changes in distribution.

5. Area covered by habitat

| | | | |
|--|--|------------|--------------------------|
| 5.1 Year or period | 1987-2008 | | |
| 5.2 Surface area (in km ²) | a) Minimum | b) Maximum | c) Best single value 4.7 |
| 5.3 Type of estimate | 95% confidence interval | | |
| 5.4 Surface area Method used | Complete survey or a statistically robust estimate | | |
| 5.5 Short-term trend Period | 2001-2017 | | |
| 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 | | | |
| 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 (km ²) b) Operator c) Unknown No d) Method | | |
| 5.14 Change and reason for change in surface area of range | Improved knowledge/more accurate data The change is mainly due to: Improved knowledge/more accurate data | | |
| 5.15 Additional information | The Sanddune Survey of Scotland has now been completely translated from NVC to Annex I habitats and is available through HabMoS which has given a revised extent figure for this habitat (which was greater than previously reported). This figure was 4.86 km ² . However 0.16 km ² has been lost at Foveran Links and South Menie from Golf Course Development, so this has been subtracted from that figure - to give 4.7 km ² habitat. There are still some issues with the data from HaBMoS (some overlapping polygons) but this is our best current data. | | |

6. Structure and functions

| | |
|---|---|
| 6.1 Condition of habitat | a) Area in good condition (km ²) Minimum 1.2 Maximum 1.2 b) Area in not-good condition (km ²) Minimum 3.29 Maximum 3.29 c) Area where condition is not known (km ²) Minimum 0.23 Maximum 0.23 |
| 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 | 2001-2016 |

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6.4 Short-term trend of habitat area in good condition Direction

Decreasing (-)

6.5 Short-term trend of habitat area in good condition Method used

Based mainly on extrapolation from a limited amount of data

6.6 Typical species

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

6.7 Typical species Method used

6.8 Additional information

No evidence to suggest that problems with scrub encroachment, self sown trees and invasion by *Chamaerion angustifolium* are not ongoing. 25.5% of the habitat (by area) is in favourable condition, 70% (by area) is in unfavourable condition while 4.9% lies outwith designated sites (we do not have direct data)

7. Main pressures and threats

7.1 Characterisation of pressures/threats

| Pressure | Ranking |
|---|---------|
| Mixed source air pollution, air-borne pollutants (J03) | H |
| Extensive grazing or undergrazing by livestock (A10) | M |
| Problematic native species (I04) | H |
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02) | M |
| 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) | M |
| Threat | Ranking |
| Mixed source air pollution, air-borne pollutants (J03) | H |
| Extensive grazing or undergrazing by livestock (A10) | M |
| Problematic native species (I04) | H |
| Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02) | M |
| 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) | M |

7.2 Sources of information

7.3 Additional information

Golf courses

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

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| | |
|--|---|
| 8.2 Main purpose of the measures taken | Restore the habitat of the species (related to 'Habitat for the species') |
| 8.3 Location of the measures taken | Only inside 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 | |

Management of habitats (others than agriculture and forest) to slow, stop or reverse natural processes (CL01)

Management of problematic native species (CI05)

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 | No evidence to suggest that problems with scrub encroachment, self sown trees and invasion by <i>Chamaerion angustifolium</i> are not ongoing. Nitrogen deposition will likely have a high impact |

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 km ² in biogeographical/ marine region) | a) Minimum b) Maximum c) Best single value 2.41 |
| 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 |

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11.4 Short-term trend of habitat area in good condition within the network Direction

Stable (0)

11.5 Short-term trend of habitat area in good condition within network Method used

Based mainly on extrapolation from a limited amount of data

11.6 Additional information

12. Complementary information

12.1 Justification of % thresholds for trends

12.2 Other relevant information

Distribution Map

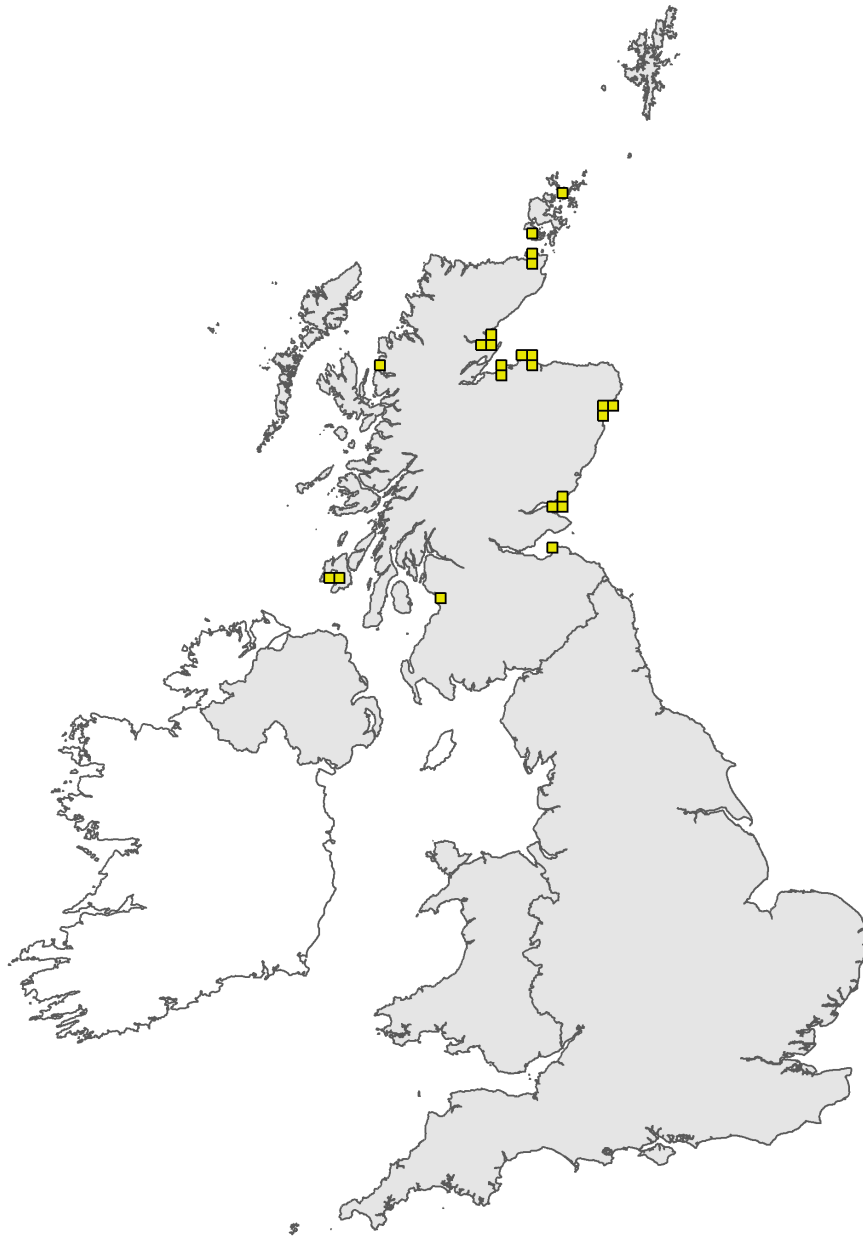


Figure 1: UK distribution map for H2140 - Decalcified fixed dunes with *Empetrum nigrum*. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

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

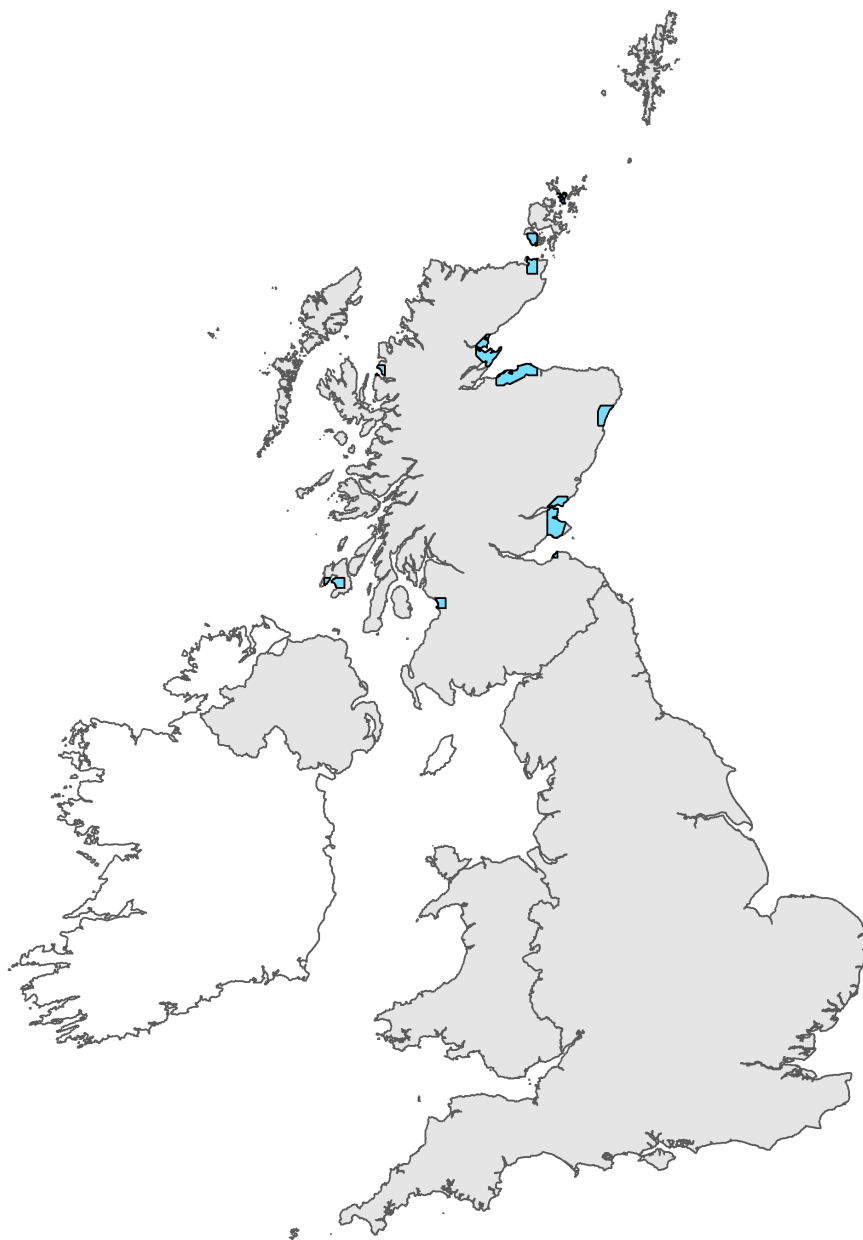


Figure 2: UK range map for H2140 - Decalcified fixed dunes with *Empetrum nigrum*. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

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.