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

Conservation status assessment for the habitat:

H91D0 - Bog woodland

UNITED KINGDOM
IMPORTANT NOTE - PLEASE READ

• The information in this document represents 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.

• It is based on supporting information provided by the geographically-relevant Statutory Nature Conservation Bodies, which is documented separately.

• The 2019 Article 17 UK Approach document provides details on how this supporting information contributed to the UK Report and the fields that were completed for each parameter.

• The reporting fields and options used are aligned to those set out in the European Commission guidance.

• Maps showing the distribution and range of the habitat are included (where available).

• Explanatory notes (where provided) are included at the end. These provide additional audit trail information to that included within the UK assessments. Further underpinning explanatory notes are available in the related country-level and/or UK offshore-level reports.

• Some of the reporting fields have been left blank because either: (i) there was insufficient information to complete the field; and/or (ii) completion of the field was not obligatory.

• The UK-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)

1. General information

1.1 Member State UK
1.2 Habitat code 91D0 - Bog woodland

2. Maps

2.1 Year or period 1985-2018
2.3 Distribution map Method used Based mainly on extrapolation from a limited amount of data
2.4 Additional maps No

3. Biogeographical and marine regions

3.1 Biogeographical or marine region where the habitat occurs Atlantic (ATL)

3.2 Sources of information

England Natural England's SSSI series review (unpublished)
Scotland References within http://jncc.defra.gov.uk/pdf/Article17Consult_20131010/H91D0_SCOTLAND.pdf
Wales
Guest, D. 2012. Assessing pressures and threats for Article 17 reporting based on information in CCW's Actions Database. CCW Staff Guidance Note.
JNCC 2017. Habitat account - Forests. 91D0 Bog woodland: http://jncc.defra.gov.uk/ProtectedSites/SACselection/habitat.asp?FeatureIntCode=H91D0 [Accessed 19/06/18]
Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

http://lle.gov.wales/catalogue/item/SACSPAMonitoringProgrammeResults/?lang=en [Accessed 19/06/18]


N.Ireland


NIEA. Internal Condition Assessment Reports (various sites and years).


Data on aerial Nitrogen deposition taken from Air Pollution Information System website - http://www.apis.ac.uk/

NIEA. Internal Survey Reports (various sites and years).


4. Range

<table>
<thead>
<tr>
<th>4.1 Surface area (in km²)</th>
<th>26375.32</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2 Short-term trend Period</td>
<td>2007-2018</td>
</tr>
<tr>
<td>4.3 Short-term trend Direction</td>
<td>Stable (0)</td>
</tr>
<tr>
<td>4.4 Short-term trend Magnitude</td>
<td>Based mainly on extrapolation from a limited amount of data</td>
</tr>
<tr>
<td>a) Minimum</td>
<td>b) Maximum</td>
</tr>
<tr>
<td>4.5 Short-term trend Method used</td>
<td></td>
</tr>
<tr>
<td>4.6 Long-term trend Period</td>
<td></td>
</tr>
<tr>
<td>4.7 Long-term trend Direction</td>
<td></td>
</tr>
<tr>
<td>4.8 Long-term trend Magnitude</td>
<td></td>
</tr>
<tr>
<td>4.9 Long-term trend Method used</td>
<td></td>
</tr>
<tr>
<td>4.10 Favourable reference range</td>
<td></td>
</tr>
<tr>
<td>a) Area (km²)</td>
<td>26375.32</td>
</tr>
</tbody>
</table>
Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

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
1985-2018

5.2 Surface area (in km²)
a) Minimum
b) Maximum
c) Best single value
6.57

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
2001-2018

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

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 (km²) 7.227
b) Operator
No
c) Unknown

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 4.116
Maximum 4.116
b) Area in not-good condition (km²)
Minimum 0.95
Maximum 0.95
c) Area where condition is not known (km²)
Minimum 1.499
Maximum 1.499
Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

| 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 | 2007-2018 |
| 6.4 Short-term trend of habitat area in good condition Direction | Increasing (+) |
| 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 | |

7. Main pressures and threats

7.1 Characterisation of pressures/threats

<table>
<thead>
<tr>
<th>Pressure</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drainage for use as agricultural land (A31)</td>
<td>M</td>
</tr>
<tr>
<td>Modification of hydrological conditions, or physical alteration of water bodies and drainage for forestry (including dams) (B27)</td>
<td>M</td>
</tr>
<tr>
<td>Problematic native species (I04)</td>
<td>M</td>
</tr>
<tr>
<td>Plant and animal diseases, pathogens and pests (I05)</td>
<td>M</td>
</tr>
<tr>
<td>Mixed source air pollution, air-borne pollutants (J03)</td>
<td>M</td>
</tr>
<tr>
<td>Droughts and decreases in precipitation due to climate change (N02)</td>
<td>M</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Threat</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modification of hydrological conditions, or physical alteration of water bodies and drainage for forestry (including dams) (B27)</td>
<td>M</td>
</tr>
<tr>
<td>Problematic native species (I04)</td>
<td>H</td>
</tr>
<tr>
<td>Plant and animal diseases, pathogens and pests (I05)</td>
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</tr>
<tr>
<td>Droughts and decreases in precipitation due to climate change (N02)</td>
<td>H</td>
</tr>
</tbody>
</table>

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

- Restore the habitat of the species (related to ‘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)
Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

8.5 List of main conservation measures

- Manage drainage and irrigation operations and infrastructures in agriculture (CA15)
- Restoration of Annex I forest habitats (CB08)
- Manage drainage and irrigation operations and infrastructures (CB14)
- Management, control or eradication of other invasive alien species (CI03)
- Management of problematic native species (CI05)
- Reduce impact of mixed source pollution (CJ01)
- Implement climate change adaptation measures (CN02)

8.6 Additional information

9. Future prospects

9.1 Future prospects of parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Range</td>
<td>Good</td>
</tr>
<tr>
<td>b) Area</td>
<td>Poor</td>
</tr>
<tr>
<td>c) Structure and functions</td>
<td>Poor</td>
</tr>
</tbody>
</table>

9.2 Additional information

Future trend of Range is Overall stable; Future trend of Area is Overall stable; and Future trend of Structure and functions is Negative - slight/moderate deterioration

10. Conclusions

10.1. Range

Favourable (FV)

10.2. Area

Unfavourable - Inadequate (U1)

10.3. Specific structure and functions (incl. typical species)

Unfavourable - Inadequate (U1)

10.4. Future prospects

Unfavourable - Inadequate (U1)

10.5 Overall assessment of Conservation Status

Unfavourable - Inadequate (U1)

10.6 Overall trend in Conservation Status

Improving (+)

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

Use of different method

The change is mainly due to: Use of different method

10.8 Additional information

Conclusion on Range reached because: (i) the short-term trend direction in Range surface area is stable; and (ii) the current Range surface area is approximately equal to the Favourable Reference Range.

Conclusion on Area covered by habitat reached because: (i) the short-term trend direction in Area is stable; and (ii) the current Area is not more than 10% below the Favourable Reference Area.

Conclusion on Structure and functions reached because habitat condition data indicates that between c.5-25% of the habitat is in unfavourable (not good) condition.
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Conclusion on Future prospects reached because: (i) the Future prospects for Range are good; (ii) the Future prospects for Area covered by habitat are poor; and (iii) the Future prospects for Structure and functions are poor. Overall assessment of Conservation Status is Unfavourable-inadequate because one or more of the conclusions is Unfavourable-inadequate and none are Unfavourable-bad. Overall trend in Conservation Status is based on the combination of the short-term trends for Range - stable, Area covered by habitat - stable, and Structure and functions - increasing. If the negative future trend in Structure and functions is also taken into account, the Overall trend would be stable. The Overall trend in Conservation Status has changed between 2013 and 2019 because of the removal of the Future prospects trend from the 2019 method used to assess Overall trend.

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
| 11.2 Type of estimate | b) Maximum
| 11.3 Surface area of the habitat type inside the network Method used | c) Best single value 8.231
| 11.4 Short-term trend of habitat area in good condition within the network Direction | Best estimate
| 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 | Stable (0)
| 12. Complementary information | Complete survey or a statistically robust estimate

12.1 Justification of % thresholds for trends

12.2 Other relevant information
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.
Figure 2: UK range map for H91D0 - Bog woodland. 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.