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 species:

S1106 - Atlantic salmon (*Salmo salar*)

UNITED KINGDOM
IMPORTANT NOTE - PLEASE READ

• The information in this document represents the UK Report on the conservation status of this species, 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 species 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 reports.

• 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 not relevant to this species (section 12 Natura 2000 coverage for Annex II species).

• 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 11 for Annex II, IV and V species (Annex B)

1. General information

<table>
<thead>
<tr>
<th>1.1 Member State</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2 Species code</td>
<td>1106</td>
</tr>
<tr>
<td>1.3 Species scientific name</td>
<td>Salmo salar</td>
</tr>
<tr>
<td>1.4 Alternative species scientific name</td>
<td></td>
</tr>
<tr>
<td>1.5 Common name (in national language)</td>
<td>Atlantic salmon</td>
</tr>
</tbody>
</table>

2. Maps

<table>
<thead>
<tr>
<th>2.1 Sensitive species</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2 Year or period</td>
<td>2007-2018</td>
</tr>
<tr>
<td>2.3 Distribution map</td>
<td>Yes</td>
</tr>
<tr>
<td>2.4 Distribution map Method used</td>
<td>Complete survey or a statistically robust estimate</td>
</tr>
<tr>
<td>2.5 Additional maps</td>
<td>No</td>
</tr>
</tbody>
</table>

3. Information related to Annex V Species (Art. 14)

<table>
<thead>
<tr>
<th>3.1 Is the species taken in the wild/exploited?</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2 Which of the measures in Art. 14 have been taken?</td>
<td>a) regulations regarding access to property</td>
</tr>
<tr>
<td></td>
<td>b) temporary or local prohibition of the taking of specimens in the wild and exploitation</td>
</tr>
<tr>
<td></td>
<td>c) regulation of the periods and/or methods of taking specimens</td>
</tr>
<tr>
<td></td>
<td>d) application of hunting and fishing rules which take account of the conservation of such populations</td>
</tr>
<tr>
<td></td>
<td>e) establishment of a system of licences for taking specimens or of quotas</td>
</tr>
<tr>
<td></td>
<td>f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens</td>
</tr>
<tr>
<td></td>
<td>g) breeding in captivity of animal species as well as artificial propagation of plant species</td>
</tr>
<tr>
<td></td>
<td>h) other measures</td>
</tr>
</tbody>
</table>

England
Restrictions to stocking to the wild.
Scotland
Prohibition on mixed stock coastal netting (already in place in Scotland and now extended to include Northumbrian netting stations), development of Conservation Limits (and annual river-by-river exploitation levels set on probability of achieving these). These were implemented through The Conservation of Salmon (Scotland) Regulations 2016. The implementation of new closed seasons/temporal restrictions to protect vulnerable life history types (such as the Spring multi-sea-winter stock component). These were implemented under The Conservation of Salmon (Annual Close Times and Catch...
Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B) and Release) (Scotland) Regulations 2014. Voluntary Catch & Release continues to be operated in most rivers for all other Atlantic salmon stock components (and can be mandatory in rivers which are designated as Grade 3 (unlikley to acheive their conservation limits) in any given year.

3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

| a) Unit |
| b) Statistics/quantity taken | Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period |
| Season/year 1 | Season/year 2 | Season/year 3 | Season/year 4 | Season/year 5 | Season/year 6 |
| Min. (raw, ie. not rounded) |  |  |  |  |  |
| Max. (raw, ie. not rounded) |  |  |  |  |  |
| Unknown | No | No | No | No | No |

3.4. Hunting bag or quantity taken in the wild Method used

3.5. Additional information

4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

Atlantic (ATL)

England
Common Standards Monitoring Guidance for Freshwater Fauna 2015
Common Standards Monitoring Guidance for Rivers 2014
Environment Agency fish survey data held on the National Fish Populations Database.

4.2 Sources of information
Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

https://ea.sharefile.com/share/view/s5301a91e00c428a8


Improving European Site Conservation Objectives with supplementary advice: internal generic guidance-framework for SAC Annex II Species features


Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)


Salmon stocks and fisheries in England And Wales, 2017 Preliminary assessment prepared for ICES, April 2018. CEFAS, Environment Agency & Natural Resources Wales


Supporting documentation for the Third Report by the United Kingdom under Article 17 on the implementation of the Directive from January 2007 to December 2012 Conservation status assessment for S1106 - Atlantic salmon. (Salmo salar)

The Status of Wild Atlantic Salmon: A River by River Assessment 2001. WWF European Freshwater Programme

The current state of salmon stocks. Appendix 2. Environment Agency


Appendix 2: The current state of salmon stocks and background estimated
number of adult salmon surviving to spawn in rivers in England spreadsheet.

Environment Agency
Scotland


Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

2013 Marine Scotland Review of salmon catches

2014 Marine Scotland Review of salmon catches

2015 Marine Scotland Review of salmon catches

2016 Marine Scotland Review of salmon catches

2017 Marine Scotland Review of salmon catches

Map source acknowledgement: Salmon rivers CEH & SG Marine Scotland (2017). Based on digital spatial data licenced from the Centre for Ecology and Hydrology (C) NERC.

Wales


Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

relevant to juvenile survival. Canadian Journal of Fisheries and Aquatic Sciences 60: 568-583.


NRW Evidence Report No: 223. Natural Resources Wales, Dolgellau.


Moore A & Waring CP. 2001. The effects of a synthetic pyrethroid pesticide on
NRW. 2017b. Fish survey database held on KiECO. Accessed December 2017.
Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

N.Ireland
Friedland KD, Chaput G & MacLean JC. (2005). The emerging role of climate in

10
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http://www.nasco.int/pdf/implementation_plans/IP_Nireland.pdf
http://www.nasco.int/pdf/reports_other/Salmon_at_sea.pdf
www.nasco.int/.../CNL_17_34 APR EU UK NorthernIreland.pdf
EU - UK (Northern Ireland). CNL (18)30
5. Range

5.1 Surface area (km²) 159801.7
5.2 Short-term trend Period 2007-2018
5.3 Short-term trend Direction Increasing (+)
5.4 Short-term trend Magnitude a) Minimum  
b) Maximum Complete survey or a statistically robust estimate
5.5 Short-term trend Method used
5.6 Long-term trend Period
5.7 Long-term trend Direction
5.8 Long-term trend Magnitude a) Minimum  
b) Maximum
5.9 Long-term trend Method used
5.10 Favourable reference range

5.11 Change and reason for change in surface area of range 
Genuine change
Improved knowledge/more accurate data
Use of different method
The change is mainly due to: Genuine change

5.12 Additional information
The current range surface area calculation does not represent the real range surface area. Change in availability of underpinning mapping data has resulted in an apparent decrease in range area compared to 2013, but this is not due to genuine change. Expert opinion considers the trend in range to be stable. The real range surface area is considered to be the range in 2013 - 180,057.75km². The FRR in 2013 was 163,132km². The FRR has been changed to an operator 'approximately equal to current' to reflect this. For further details see the 2019 Article 17 UK Approach document.

6. Population

6.1 Year or period 2007-2018
6.2 Population size (in reporting unit) a) Unit  
b) Minimum  
c) Maximum  
d) Best single value 16216
6.3 Type of estimate Minimum
### Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.4</td>
<td>Additional population size (using population unit other than reporting unit)</td>
</tr>
<tr>
<td>6.5</td>
<td>Type of estimate</td>
</tr>
<tr>
<td>6.6</td>
<td>Population size Method used</td>
</tr>
<tr>
<td>6.7</td>
<td>Short-term trend Period</td>
</tr>
<tr>
<td>6.8</td>
<td>Short-term trend Direction</td>
</tr>
<tr>
<td>6.9</td>
<td>Short-term trend Magnitude</td>
</tr>
<tr>
<td>6.10</td>
<td>Short-term trend Method used</td>
</tr>
<tr>
<td>6.11</td>
<td>Long-term trend Period</td>
</tr>
<tr>
<td>6.12</td>
<td>Long-term trend Direction</td>
</tr>
<tr>
<td>6.13</td>
<td>Long-term trend Magnitude</td>
</tr>
<tr>
<td>6.14</td>
<td>Long-term trend Method used</td>
</tr>
<tr>
<td>6.15</td>
<td>Favourable reference population (using the unit in 6.2 or 6.4)</td>
</tr>
<tr>
<td>6.16</td>
<td>Change and reason for change in population size</td>
</tr>
<tr>
<td>6.17</td>
<td>Additional information</td>
</tr>
<tr>
<td>7.1</td>
<td>Sufficiency of area and quality of occupied habitat</td>
</tr>
<tr>
<td>7.2</td>
<td>Sufficiency of area and quality of occupied habitat Method used</td>
</tr>
</tbody>
</table>

#### Additional Information

- **Number of adults (adults)**: 741000
- **Best single value (709784)**
- **Minimum**: 709784
- **Maximum**: 741000
- **Unit**: number of adults (adults)
- **Method used**: Based mainly on extrapolation from a limited amount of data
- **Period**: 2005-2018
- **Direction**: Decreasing (-)
- **Magnitude**: Complete survey or a statistically robust estimate
- **Change and reason for change in population size**: Genuine change
- **Sufficiency of area and quality of occupied habitat**: Yes
- **Change and reason for change in occupied habitat**: Genuine change

This species exhibits large inter-annual fluctuations in population size. The short-term trend in population is declining. There are also underlying issues in population age structure which are considered strongly deviating from normal.

#### Habitat for the species

- **Sufficiency of area and quality of occupied habitat**
  - Are area and quality of occupied habitat sufficient (for long-term survival)? **Yes**
  - Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

**Method used**: Complete survey or a statistically robust estimate
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7.3 Short-term trend Period
2006-2018

7.4 Short-term trend Direction
Increasing (+)

7.5 Short-term trend Method used
Based mainly on extrapolation from a limited amount of data

7.6 Long-term trend Period

7.7 Long-term trend Direction

7.8 Long-term trend Method used

7.9 Additional information
At a UK scale there is considered to be sufficient occupied and unoccupied habitat combined, but there are continuing problems in certain parts of the UK with regard to poor water quality and the existence of historical physical barriers impeding migration.

8. Main pressures and threats

8.1 Characterisation of pressures/threats

<table>
<thead>
<tr>
<th>Pressure</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural activities generating point source pollution to surface or ground waters (A25)</td>
<td>M</td>
</tr>
<tr>
<td>Agricultural activities generating diffuse pollution to surface or ground waters (A26)</td>
<td>M</td>
</tr>
<tr>
<td>Forestry activities generating pollution to surface or ground waters (B23)</td>
<td>M</td>
</tr>
<tr>
<td>Management of fishing stocks and game (G08)</td>
<td>H</td>
</tr>
<tr>
<td>Introduction and spread of species (including GMOs) in marine aquaculture (G17)</td>
<td>H</td>
</tr>
<tr>
<td>Introduction and spread of species (including alien species and GMOs) in freshwater aquaculture (G24)</td>
<td>M</td>
</tr>
<tr>
<td>Physical alteration of water bodies (K05)</td>
<td>H</td>
</tr>
<tr>
<td>Temperature changes (e.g. rise of temperature &amp; extremes) due to climate change (N01)</td>
<td>H</td>
</tr>
<tr>
<td>Increases or changes in precipitation due to climate change (N03)</td>
<td>H</td>
</tr>
<tr>
<td>Desynchronisation of biological / ecological processes due to climate change (N06)</td>
<td>M</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Threat</th>
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10. Future prospects

10.1 Future prospects of parameters

a) Range: Good
b) Population: Poor
c) Habitat of the species: Good

10.2 Additional information

Future trend of Range is Positive - increasing <=1% (one percent or less) per year on average; Future trend of Population is Negative - decreasing <=1% (one percent or less) per year on average; and Future trend of Habitat for the species is Positive - increasing <=1% (one percent or less) per year on average. For further information on how future trends inform the Future Prospects...
11. Conclusions

11.1. Range
- Favourable (FV)

11.2. Population
- Unfavourable - Inadequate (U1)

11.3. Habitat for the species
- Favourable (FV)

11.4. Future prospects
- Unfavourable - Inadequate (U1)

11.5 Overall assessment of Conservation Status
- Unfavourable - Inadequate (U1)

11.6 Overall trend in Conservation Status
- Stable (=)

11.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status
- No change

b) Overall trend in conservation status
- No change

11.8 Additional information

Conclusion on Range reached because: (i) the short-term trend direction in Range surface area is increasing; and (ii) the current Range surface area is not less than the Favourable Reference Range.

Conclusion on Population reached because: (i) the short-term trend direction in Population size is decreasing by 1% per year or less; and (ii) the current Population size is not more than 25% below the Favourable Reference Population.

Conclusion on Habitat for the species reached because: (i) the area of occupied habitat is sufficiently large and (ii) the habitat quality is suitable for the long-term survival of the species; and (iii) the short-term trend in area of habitat is increasing.

Conclusion on Future prospects reached because: (i) the Future prospects for Range are good; (ii) the Future prospects for Population are poor; and (iii) the Future prospects for Habitat for the species are good.

Overall assessment of Conservation Status is Unfavourable-inadequate because one or more of the conclusions are Unfavourable-inadequate.

Overall trend in Conservation Status is based on the combination of the short-term trends for Range - increasing, Population - decreasing, and Habitat for the species - increasing.

Overall assessment of Conservation Status has not changed since 2013.
Overall trend in Conservation Status has not changed since 2013.

12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

<table>
<thead>
<tr>
<th>a) Unit number of map 1x1 km grid cells (grids1x1)</th>
<th>b) Minimum</th>
<th>c) Maximum</th>
<th>d) Best single value</th>
</tr>
</thead>
<tbody>
<tr>
<td>5987</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 13. Complementary information

#### 13.1 Justification of % thresholds for trends

- **Type of estimate:** Minimum
- **Method used:** Complete survey or a statistically robust estimate

#### 13.2 Trans-boundary assessment

- **Direction:** Decreasing (-)
- **Method used:** Complete survey or a statistically robust estimate

#### 13.3 Other relevant Information

<table>
<thead>
<tr>
<th>Type of estimate</th>
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</tr>
</thead>
<tbody>
<tr>
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</table>
Figure 1: UK distribution map for S1106 - Atlantic salmon (Salmo salar). 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 species records within the current reporting period. For further details see the 2019 Article 17 UK Approach document.
Figure 2: UK range map for S1106 - Atlantic salmon (Salmo salar). 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 species was 25km. For further details see the 2019 Article 17 UK Approach document.