Reporting under the Habitat Regulations (as amended)[1]

2019-2024

Conservation status assessment for the species:

S1345 - Humpback whale

(*Megaptera novaeangliae*)

United Kingdom

[1] Habitat Regulations (as amended):

- The Conservation of Habitats and Species Regulations 2017 (as amended), Regulation 9A
- The Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended), Regulation 6A
- Report under The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended), regulation 3ZA
- The Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended), regulation 3ZA

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This report was produced by JNCC in collaboration with the UK Country Nature Conservation Bodies (CNCBs) and country governments.

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Important note - Please read

- The information in this document represents the United Kingdom Reporting under the Habitat Regulations (as amended)[1], for the period 2019-2024.
- It is based on supporting information provided by Joint Nature Conservation Committee and UK Country Nature Consevation Bodies (CNCBs), which is documented separately.
- The Habitats Regulations reporting 2019-2024 Approach Document provides details on how this supporting information contributed to the UK Report and the fields that were completed for each parameter.
- Map showing the distribution and range of the species is included.
- Explanatory notes (where provided) are included at the end. These provide additional audit trail information to that included within the assessments. Further underpinning explanatory notes are available in the related country 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 National Site Network coverage for Annex II species).

Further details on the approach to the Habitats Regulations Reporting 2019-2024 are available on the JNCC website.

Assessment Summary: Humpback whale

Distribution and Range Map

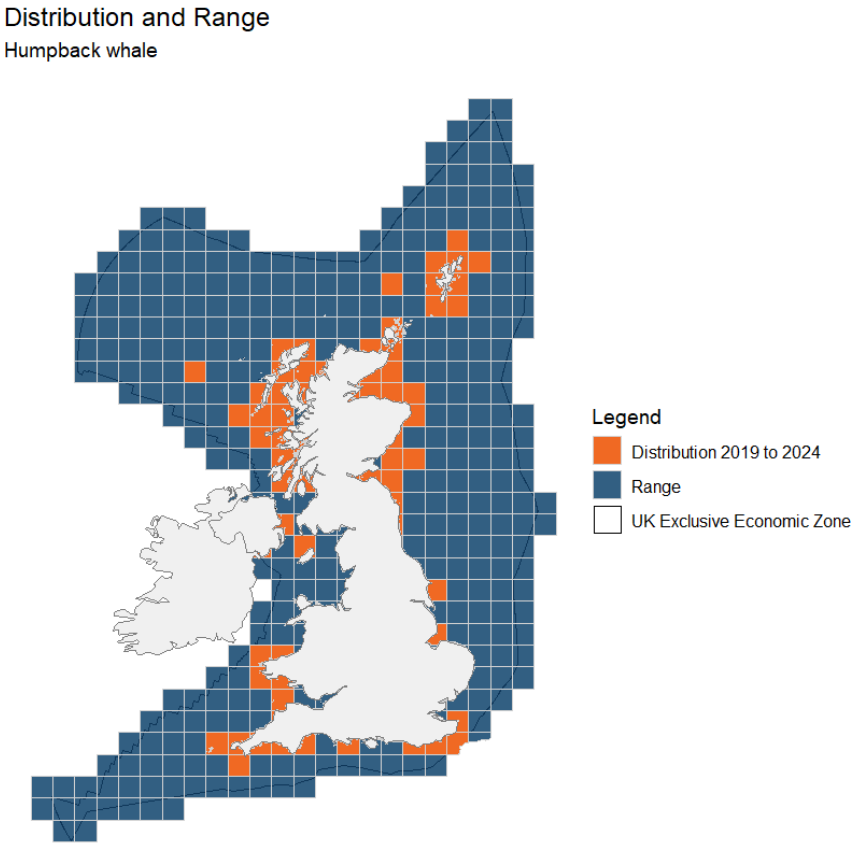

Figure 1: United Kingdom distribution and range map for S1345 - Humpback whale (*Megaptera novaeangliae*). The 50km grid square distribution map is based on available species records within the current reporting period.

Table 1: Table summarising the conservation status for S1345 - Humpback whale (*Megaptera novaeangliae*). Overall conservation status for species is based on assessments of range, population, habitat for the species, and future prospects.

Overall Conservation Status (see section 11)

Unknown (XX)

Breakdown of Overall Conservation Status

Range (see section 5)	**Favourable (FV)**
Population (see section 6)	**Unknown (XX)**
Habitat for the species (see section 7)	**Unknown (XX)**
Future prospects (see section 10)	**Unknown (XX)**

List of Sections

National Level

1. General information

1.1 Country	United Kingdom
1.2 Species code	S1345
1.3 Species scientific name	*Megaptera novaeangliae*
1.4 Alternative species scientific name	
1.5 Common name	Humpback whale
Annex(es)	IV

2. Maps

2.1 Sensitive species	No
2.2 Year or period	2019-2022
2.3 Distribution map	Yes
2.4 Distribution map; Method used	Complete survey or a statistically robust estimate

2.5 Additional information

The distribution map is based on verified sightings data of humpback whale between 2019 and 2024. The sightings were collated from SCANS IV, Pelagis French surveys, NBN Atlas, European Seabirds at Sea, the Joint Cetacean Data Programme, POSEIDON project, University of Aberdeen, The Crown Estate Marine Data Exchange, Whale and Dolphin Conservation, Hebridean Whale and Dolphin Trust, ORCA, Sea Watch Foundation, Marine Discovery Penzance, Sussex Dolphin Project, Cornwall Seal Group Research Trust, Cardigan Bay Marine Wildlife Centre, Natural England, Sea Trust and The Royal Society for the Protection of Birds (RSPB).

3. Information related to Annex V Species

3.1 Is the species taken in the wild / exploited?

3.2 What measures have been taken?

a) Regulations regarding access to property

b) Temporary or local prohibition on the taking of specimens in the wild and exploitation

c) Regulation of the periods and/or methods of taking specimens

d) Application of hunting and fishing rules which take account of the conservation of such populations

e) Establishment of a system of licences for taking specimens or of quotas

f) Regulation of the purchase, sale, offering for sale, keeping for sale, or transport for sale of specimens

g) Breeding in captivity of animal species as well as artificial propagation of plant species

Other measures

Other measures description

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

a) Unit

Table 2: Quantity taken from the wild during the reporting period (see 3.3a for units). For species with defined hunting seasons, Season 1 refers to 2018/2019 (autumn 2018 to spring 2019), and Season 6 to 2023/2024. For species without hunting seasons, data are reported by calendar year: Year 1 is 2019, and Year 6 is 2024.

	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ year 6
b) Minimum	-	-	-	-	-	-
c) Maximum	-	-	-	-	-	-
d) Unknown	-	-	-	-	-	-

3.4: Hunting bag or quantity taken in the wild; Method used	

3.5: Additional information

No additional information

Biogeographical Level

4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs	MATL

4.2 Sources of information

See section 14 References

5. Range

5.1 Surface area (km²)	895,498
5.2 Short-term trend; Period	2019-2023
5.3 Short-term trend; Direction	Stable
5.4 Short-term trend; Magnitude	
a) Estimated minimum	
b) Estimated maximum	
c) Pre-defined range	
d) Unknown	
e) Type of estimate	
f) Rate of decrease	
5.5 Short-term trend; Method used	Based mainly on expert opinion with very limited data
5.6 Long-term trend; Period	
5.7 Long-term trend; Direction	

5.8 Long-term trend; Magnitude	
a) Minimum	
b) Maximum	
c) Rate of decrease	
5.9 Long-term trend; Method used	

5.10 Favourable Reference Range (FRR)

a) Area (km²)	895,498
b) Pre-defined increment	
c) Unknown	No
d) Method used	Expert opinion
e) Quality of information	moderate

5.11 Change and reason for change in surface area of range

a) Change	No
b) Genuine change	
c) Improved knowledge or more accurate data	
d) Different method	
e) No information	
f) Other reason	
g) Main reason	

5.12 Additional information

The distribution is based on verified sightings of humpback whales between 2019 and 2024. The sightings were collated from SCANS IV, Pelagis French surveys, NBN Atlas, European Seabirds at Sea, the Joint Cetacean Data Programme, POSEIDON project, University of Aberdeen, The Crown Estate Marine Data Exchange, Whale and Dolphin Conservation, Hebridean Whale and Dolphin Trust, ORCA, Sea Watch Foundation, Marine Discovery Penzance, Sussex Dolphin Project, Cornwall Seal Group Research

Trust, Cardigan Bay Marine Wildlife Centre, Natural England, Sea Trust and The Royal Society for the Protection of Birds (RSPB).

This is the first time the range and FRR for humpback whales have been defined for UK reporting requirements. Therefore, it is not possible to determine trends.

The occurrence of humpback whales in UK waters is currently primarily monitored through citizen science programmes recording opportunistic observations and photo ID. The range for humpback whales is assumed to be the whole UK EEZ region as humpback whales have been reported in all regions of UK waters, but are regularly seen in SW and Scottish waters during winter months (O'Neil, et al., 2019). There is a perception that humpback whale numbers in UK waters are increasing, but evidence is still limited to confirm this trend.

6. Population

6.1 Year or period

6.2 Population size (in reporting unit)

a) Unit	number of individuals
b) Minimum	
c) Maximum	
d) Best single value	
6.3 Type of estimate	
6.4 Quality of extrapolation to reporting unit	

6.5 Additional population size (using population unit other than reporting unit)

a) Unit	
b) Minimum	
c) Maximum	
d) Best single value	
e) Type of estimate	

6.6 Population size; Method used	Insufficient or no data available

6.7 Short-term trend; Period	
6.8 Short-term trend; Direction	Unknown
6.9 Short-term trend; Magnitude	
a) Estimated minimum	
b) Estimated maximum	
c) Pre-defined range	
d) Unknown	
e) Type of estimate	
f) Rate of decrease	
6.10 Short-term trend; Method used	Insufficient or no data available
6.11 Long-term trend; Period	
6.12 Long-term trend; Direction	Unknown
6.13 Long-term trend; Magnitude	
a) Minimum	
b) Maximum	
c) Confidence interval	
d) Rate of decrease	
6.14 Long-term trend; Method used	Insufficient or no data available
6.15 Favourable Reference Population (FRP)	
ai) Population size	
aii) Unit	
b) Pre-defined increment	
c) Unknown	Yes
d) Method used	

e) Quality of information	

6.16 Change and reason for change in population size

a) Change	No
b) Genuine change	
c) Improved knowledge or more accurate data	
d) Different method	
e) No information	
f) Other reason	
g) Main reason	

6.17 Additional information

Photo identification efforts for humpback whale sightings reported in the UK are being undertaken through citizen science initiatives in Scotland and SW England. The SW England catalogue comprises of 16 individuals, and include matches with Scotland, Ireland, Jan Mayen Islands and Dominican Republic (Hiscock et al, 2022). The Scottish catalogue [https://www.scothumpback.co.uk/] include matches with Norway, Iceland, Ireland, Cornwall, Azores and Cape Verde, highlighting the UK as an area these migrating whales make use of as they transition between summer and winter grounds.

6.18 Age structure, mortality and reproduction deviation	Unknown

7. Habitat for the species

7.1 Sufficiency of area and quality of occupied habitat (for long-term survival)

a) Is area of occupied habitat sufficient?	Unknown
b) Is quality of occupied habitat sufficient?	Unknown

c) If No or Unknown, is there a sufficiently large area of unoccupied habitat of suitable quality?	Unknown

7.2 Sufficiency of area and quality of occupied habitat; Method used

a) Sufficiency of area of occupied habitat; Method used	Based mainly on expert opinion with very limited data
b) Sufficiency of quality of occupied habitat; Method used	Based mainly on expert opinion with very limited data

7.3 Short-term trend; Period

7.4 Short-term trend; Direction	Unknown
7.5 Short-term trend; Method used	Based mainly on expert opinion with very limited data

7.6 Long-term trend; Period

7.7 Long-term trend; Direction	Unknown
7.8 Long-term trend; Method used	Based mainly on expert opinion with very limited data

7.9 Additional information

Direct evidence of cetacean habitat quality is limited as presently, a comprehensive understanding of the key elements important to the species is undetermined. In some cases, conclusions for species range and population could be indicative of habitat quality by proxy, however confidence in assessment outputs would be low.

The occurrence of humpback whale in UK EEZ appears to be increasing over the last decade, based on reported sightings and non-systematic photo identification. But there is insufficient evidence to be able to determine the habitat for the species.

8. Main pressures

8.1 Characterisation of pressures

Table 3: Pressures affecting the species, including timing and importance/impact ranking. Pressures are defined as factors acting currently and/or during the reporting period (2019–2024). Rankings are: High

(direct/immediate influence and/or large spatial extent) and Medium (moderate direct/immediate influence, mainly indirect and/or regional extent).

Pressure	Timing	Ranking
Bycatch and incidental killing (due to fishing and hunting activities)	Ongoing and likely to be in the future	Medium (M)
Marine fish and shellfish harvesting causing reduction of species/prey populations and disturbance of species (professional)	Ongoing and likely to be in the future	Medium (M)
Decline or extinction of related species (e.g. food source / prey, predator / parasite, symbiote, etc.) due to climate change	Ongoing and likely to be in the future	Medium (M)
Geotechnical surveying	Ongoing and likely to be in the future	Medium (M)
Shipping lanes and ferry lanes transport operations	Ongoing and likely to be in the future	Medium (M)
Threats and pressures from outside the Member State	Ongoing and likely to be in the future	Medium (M)

8.2 Sources of information

See section 14 References

8.3 Additional information

PC07: Regional pressure in the North Sea and the Irish Sea.

PX02: Relating to continued whaling of this species outside of UK waters which may be having an impact on populations.

9. Conservation measures

9.1: Status of measures

a) Are measures needed?	Yes
b) Indicate the status of measures	Measures identified and taken
9.2 Main purpose of the measures taken	Maintain the current range, population and/or habitat for the species

9.3 Location of the measures taken	Both inside and outside National Site Network
9.4 Response to measures	Medium-term results (within the next two reporting periods, 2025–2036)

9.5 List of main conservation measures

Table 4: Key conservation measures addressing current pressures and/or anticipated threats during the next two reporting periods (2025–2036). Measures are ranked by importance/impact: High (direct/immediate influence and/or large spatial extent) and Medium (moderate direct/immediate influence, mainly indirect and/or regional extent).

Conservation measure	Ranking
Reduce bycatch and incidental killing of non-target species	High (H)
Adapt/manage exploitation of energy resources	High (H)
Adapt/manage renewable energy installation, facilities and operation (excl. hydropower and abstraction activities)	High (H)

9.6 Additional information

This species is not an Annex II species and therefore the designation of SACs is not required, as stipulated in the Habitats Regulations. However, as a European Protected Species, protection is provided throughout UK waters and it is an offence to kill, injure or disturb. The UK remains committed to the conservation of marine mammals in UK waters and the implementation of measures to mitigate the impact of pressures and conservation measures have been undertaken in the UK and adjacent waters as part of the requirements of the Habitats Regulations. Such measures include monitoring bycatch, monitoring strandings data to monitor current and identify emerging pressures, application of appropriate management measures, and noise monitoring and mitigation with regards to offshore industry. This is reflected in the list of conservation measures under field 9.5. The UK also supports a range of international agreements and conventions on the conservation of marine mammals and the marine environment. For example: The Convention on Migratory Species; the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR). A UK Cetacean Conservation Strategy is currently in development, due for publication shortly. The strategy is intended to support decision making and identify actions necessary to maintain or improve the conservation status of cetaceans in UK waters. Defra and devolved administrations fund national strandings schemes for cetaceans which aim to: collate, analyse and report data for all cetacean strandings around the coast of the UK; determine the causes of death (both natural and anthropogenic) in stranded cetaceans, including bycatch and

physical trauma and; undertake surveillance on the incidence of disease in stranded cetaceans in order to identify any substantial new threats to their conservation status.

10. Future prospects

10.1a Future trends of parameters

ai) Range	Unknown
bi) Population	Unknown
ci) Habitat for the species	Unknown

10.1b Future prospects of parameters

aii) Range	Unknown
bii) Population	Unknown
cii) Habitat for the species	Unknown

10.2 Additional information

No additional information

11. Conclusions

11.1 Range	Favourable (FV)
11.2 Population	Unknown (XX)
11.3 Habitat for the species	Unknown (XX)
11.4 Future prospects	Unknown (XX)
11.5 Overall assessment of Conservation Status	Unknown (XX)
11.6 Overall trend in Conservation Status	Unknown

11.7 Change and reason for change in conservation status

a) Change	Yes
b) Genuine change	No

c) Improved knowledge or more accurate data	No
d) Different method	No
e) No information	No
f) Other reason	Yes
g) Main reason	Other reasons

11.7 Change and reason for change in conservation status trend

a) Change	Yes
b) Genuine change	No
c) Improved knowledge or more accurate data	No
d) Different method	No
e) No information	No
f) Other reason	Yes
g) Main reason	Other reasons

11.8 Additional information

Humpback whale was assessed as a vagrant species during the previous Article 17 reporting round in 2019, and insufficient information was available to draw conclusions on the overall conservation status or trend.

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 equivalent to the Favourable Reference Range.

Conclusion on Population reached because: (i) the short-term trend direction in Population size is unknown; (ii) the best estimate for population size is unknown; and (iii) the Favourable Reference Population is unknown.

Conclusion on Habitat for the species reached because: (i) it is unknown whether the area of habitat is sufficiently large; (ii) it is unknown if habitat quality is sufficient for the long-term survival of the species; and (iii) the short-term trend in area and quality of habitat is unknown.

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

Overall assessment of Conservation Status is Unknown because two or more conclusions are Unknown and no conclusions are Unfavourable.

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

12. UK National Site Network (pSCIs, SCIs, SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network

a) Unit	
b) Minimum	
c) Maximum	
d) Best single value	
12.2 Type of estimate	
12.3 Population size inside the network; Method used	
12.4 Short-term trend of population size within the network; Direction	
12.5 Short-term trend of population size within the network; Method used	
12.6 Short-term trend of habitat for the species inside the pSCIs, SCIs and SACs network; Direction	
12.7 Short-term trend of habitat for the species inside the pSCIs, SCIs and SACs network; Method used	

12.8 Additional information

No additional information

13. Complementary information

13.1 Justification of percentage thresholds for trends

No justification information

13.2 Trans-boundary assessment

No trans-boundary assessment information

13.2 Other relevant information

No other relevant information

14. References

Biogeographical and marine regions

4.2 Sources of information

Hiscock, K., Earll, B. et al (2022). South-West Marine Ecosystems in 2022 (The State of South-West Seas) Report for 2022. Pp 117. http://swmecosystems.co.uk/wp-content/uploads/2023/08/SWME_2022_consolidated_report_010823_compressed.pdf

O'Neil, K.E., Cunningham, E.G. & Moore, D.M. Sudden seasonal occurrence of humpback whales Megaptera novaeangliae in the Firth of Forth, Scotland and first confirmed movement between high-latitude feeding grounds and United Kingdom waters. Mar Biodivers Rec 12, 12 (2019). https://doi.org/10.1186/s41200-019-0172-7

Deaville, R. (compiler). 2019. Annual report for the period 1st January to 31st December 2018. UK Cetacean Strandings Investigation Programme (CSIP). Available at: https://sciencesearch.defra.gov.uk/ProjectDetails?ProjectId=20101 [Accessed 07 Nov 2024]

Dunlop, R.A., Noad, M.J., McCauley, R.D., Kniest, E., Slade, R., Paton, D. and Cato, D.H., 2017. The behavioural response of migrating humpback whales to a full seismic airgun array. Proceedings of the Royal Society B: Biological Sciences, 284(1869), p.20171901.

Fournet, M.E., Matthews, L.P., Gabriele, C.M., Haver, S., Mellinger, D.K. and Klinck, H., 2018. Humpback whales Megaptera novaeangliae alter calling behavior in response to natural sounds and vessel noise. Marine Ecology Progress Series, 607, pp.251-268.

JNCC. 2010a. The protection of marine European Protected Species from deliberate injury, killing and disturbance. Guidance for the marine area in England and Wales and the UK offshore marine area. Available on request from JNCC.

JNCC. 2010b. Statutory nature conservation agency protocol for minimising the risk of injury to marine mammals from Piling noise. 2010. JNCC Peterborough. United Kingdom. Available at: https://data.jncc.gov.uk/data/31662b6a-19ed-4918-9fab-8fbcff752046/JNCC-CNCB-Piling-protocol-August2010-Web.pdf [Accessed 06 Nov 2024]

JNCC. 2010c. JNCC guidelines for minimising the risk of injury to marine mammals from using explosives. August 2010. Available at: https://data.jncc.gov.uk/data/24cc180d-4030-49dd-8977-a04ebe0d7aca/JNCC-Guidelines-Explosives-Guidelines-201008-Web.pdf [Accessed 06 Nov 2024]

JNCC. 2017. JNCC guidelines for minimising the risk of injury to marine mammals from geophysical surveys. Available at: https://data.jncc.gov.uk/data/e2a46de5-43d4-43f0-b

296-c62134397ce4/jncc-guidelines-seismicsurvey-aug2017-web.pdf [Accessed 06 Nov 2024]

JNCC. 2023. JNCC guidance for the use of Passive Acoustic Monitoring in UK waters for minimising the risk of injury to marine mammals from offshore activities. JNCC, Peterborough. Available at: https://hub.jncc.gov.uk/assets/fb7d345b-ec24-4c60-aba2-894e50375e33 [Accessed 06 Nov 2024]

Leaper, R., MacLennan, E., Brownlow, A., Calderan, S.V., Dyke, K., Evans, P.G., Hartny-Mills, L., Jarvis, D., McWhinnie, L., Philp, A. and Read, F.L., 2022. Estimates of humpback and minke whale entanglements in the Scottish static pot (creel) fishery. Endangered Species Research, 49, pp.217-232.

Leopold, M.F., Rotshuizen, E. and Evans, P.G., 2018. From nought to 100 in no time: how humpback whales (Megaptera novaeangliae) came into the southern North Sea. Lutra, 61, pp.165-188.

MacLennan, E., Hartny-Mills, L., Read, F.L., Dolman, S.J., Philp, A., Dearing, K.E., Jarvis, D. and Brownlow, A.C., 2021. Scottish Entanglement Alliance (SEA): Understanding the scale and impacts of marine animal entanglement in the Scottish creel fishery. NatureScot Research Report 1268. Available at: https://www.nature.scot/doc/naturescot-research-report-1268-scottish-entanglement-alliance-sea-understanding-scale-and-impacts [Accessed 07 Nov 2024]

MacLennan, Ellie & Leaper, Russell & Brownlow, Andrew & Calderan, Susannah & Jarvis, Dan & Hartny-Mills, Lauren & Ryan, Conor & Yamada, Chika. 2020. Estimates of humpback and minke whale entanglements in Scotland. Available at: https://www.researchgate.net/publication/345146035_Estimates_of_humpback_and_minke_whale_entanglements_in_Scotland [Accessed 07 Nov 2024]

Marine Scotland. 2014. The protection of Marine European Protected Species from injury and disturbance. Guidance for Scottish Inshore Waters.

Meynecke, J.O., de Bie, J., Barraqueta, J.L.M., Seyboth, E., Dey, S.P., Lee, S.B., Samanta, S., Vichi, M., Findlay, K., Roychoudhury, A. and Mackey, B., 2021. The role of environmental drivers in humpback whale distribution, movement and behavior: A review. Frontiers in Marine Science, 8, p.720774.

Noad, M. and Dunlop, R., 2023. Humpback whales increase the length of their songs during nearby airgun operations. The Journal of the Acoustical Society of America, 154(4_supplement), pp.A88-A88.

Ryan, C., Whooley, P., Berrow, S.D., Barnes, C., Massett, N., Strietman, W.J., Broms, F., Stevick, P.T., Fernald, T.W. and Schmidt, C., 2016. A longitudinal study of humpback

whales in Irish waters. Journal of the Marine Biological Association of the United Kingdom, 96(4), pp.877-883.

Simmonds, M., McLellan, F., Entrup, N., & Nunny, L. (2021). Whaling in Europe: An Ongoing Welfare and Conservation Concern In: Under Pressure: The need to protect whales and dolphins in European waters. An OceanCare Report. Available at: https://www.oceancare.org/wp-content/uploads/2022/11/Animal_Species_Protection_Under-Pressure_Whales-and-Dolphins_EU_Report_OceanCare_EN_146p_2021.pdf [Accessed 06 Nov 2024]

Stone, C., Hall, K., Mendes, S. and Tasker, M. 2017. The effects of seismic operations in UK waters: analysis of Marine Mammal Observer data. J. Cetacean Res. Manage., 16, pp.71-85.

JNCC. 2025. JNCC guidelines for minimising the risk of injury to marine mammals from unexploded ordnance (UXO) clearance in the marine environment. JNCC, Aberdeen.

JNCC, Natural England and Cefas. 2025. JNCC, Natural England and Cefas position on the use of quieter piling methods and noise abatement systems when installing offshore wind turbine foundations. JNCC, Aberdeen.

Fournet, M.E., Matthews, L.P., Gabriele, C.M., Haver, S., Mellinger, D.K. and Klinck, H., 2018. Humpback whales Megaptera novaeangliae alter calling behavior in response to natural sounds and vessel noise. Marine Ecology Progress Series, 607, pp.251-268.

Mercado, E., 2020. Humpback whale (Megaptera novaeangliae) sonar: Ten predictions. Journal of Comparative Psychology, 134(1), p.123.

Evans, P.G.H. and Waggitt, J.J. 2023. Modelled Distribution and Abundance of Cetaceans and Seabirds in Wales and Surrounding Waters. NRW Evidence Report, Report No: 646,

354 pp. Natural Resources Wales, Bangor.

Main pressures

8.2 Sources of information

No sources of information

15. Explanatory Notes

Field label	Note
8.1: Characterisation of pressures	PG13 Bycatch and incidental killing (due to fishing and hunting activities). Unsustainable entanglement of humpback whales in creel lines raises significant welfare concerns and potential population impacts (MacLennan et al., 2020; 2021; Ryan et al., 2016). Entanglement is a particular concern for humpback whales because they are able to carry gear for extended periods of time, resulting in prolonged bioenergetic costs (MacLennan et al., 2021). Estimates suggest an average of six humpback whales become entangled in fishing gear each year and appear to have increased over the last decade (Leaper et al., 2022; MacLennan et al., 2020). An increase in entanglement may reflect a recovery of the population post-whaling however, increased reporting may also have improved our understanding of the extent of the pressure (MacLennan et al., 2020). Bycatch of humpback whales in other gear types (e.g., bottom set nets and trawls) is much more rare and therefore, the issue is likely to be regionally significant in areas where static pot (creel) fishing occurs. Secondary bycatch in fishing gear caught on floating offshore wind may also be a concern for this species.
8.1: Characterisation of pressures	PG01 Marine fish and shellfish harvesting causing reduction of species/prey populations and disturbance of species (professional). There is little direct evidence on the impacts of marine and shellfish harvesting causing the depletion of prey for humpback whales in the UK. However, concerns have been raised that commercial fisheries may already be depleting several key prey items (sandeels, sprat, herring etc.) and when combined with the impacts of climate change, prey availability is a particular concern for the species (Meynecke et al., 2021; Leopold, 2018).
8.1: Characterisation of pressures	PJ12 Decline or extinction of related species (e.g. food source / prey, predator / parasite, symbiote, etc.) due to climate change. There is little direct evidence on the impacts of prey depletion for humpback whales in the UK.

	However, concerns have been raised that commercial fisheries may already be depleting several key prey items (sandeels, sprat, herring etc.) and when combined with the impacts of climate change, prey availability is a particular concern for the species (Meynecke et al., 2021; Leopold, 2018).
8.1: Characterisation of pressures	PC07 Geotechnical surveying. Geophysical surveying may impact on humpback whale movements and behaviours. In response to active seismic airgun arrays, migrating humpback whales up to 4km away from the array displayed changes in behaviours and reduced migration southwards, moving at below usual speeds (Dunlop et al., 2017). Further, studies in Australia found that humpback whales produced significantly longer songs during nearby airgun operations, although they noted that responses may be individual-specific (Noad et al., 2023). Close proximity to noise created by geotechnical activity also has potential to cause injury, although evidence for the impact and level of risk is limited. This is also mitigated through guidance on operations such as soft start and on board marine mammal observers. Pressure is likely to be regionally specific when occurring (North Sea and Celtic and Irish Seas).
8.1: Characterisation of pressures	PE02 Shipping lanes and ferry lanes transport operations. Evidence from the UK stranding schemes, CSIP and SMASS, show little evidence of fatality due to boat/ship strike with only one necropsy concluding cause of death between 2018 and 2022 (Deaville, 2019). However, worldwide the issue of ship strike is considered a potential threat, and with evidence of humpback whales increasing in numbers in the North Sea, movement through busy shipping lanes may mean that this pressure increases (Meynecke et al., 2021; Leopold, 2018). It is also noted that humpback whales increase source levels of calls with increased ambient noise levels from vessel traffic (Fournet et al., 2018).
8.1: Characterisation of pressures	PX02 Threats and pressures from outside the Member State. Humpback whales continue to be hunted (with quota) in Greenland with a total of 72 animals taken

	between 2010 and 2020, ranging from 10 in 2012 to 1 in 2020 (Simmonds et al., 2021).
9.5: List of main conservation measures	MC02 Adapt/manage exploitation of energy resources: Guidance for the protection of marine European Protected Species from deliberate injury, killing and disturbance has been drafted (JNCC 2010a; Marine Scotland, 2014). Marine Industries generate a variety of noise through activities such as geophysical surveys (e.g. seismic surveys (JNCC 2017)), construction (e.g. pile driving (JNCC 2010b)) and decommissioning (e.g. use of explosives (2010c)). As part of the licencing procedures, developers and operators are required to utilise JNCC guidelines to minimise the risk of injury to cetaceans when undertaking such activities (JNCC, 2010b, 2010c; 2017; 2023; 2025; JNCC, Natural England & Cefas, 2025). The guidelines advise on conducting marine mammal observations prior to and during the activity and, where suitable, utilising procedures such as soft start (gradual introduction of the sound) to reduce and avoid direct harm to animals. A review of the marine mammal observer data demonstrated the effectiveness of soft start approach (Stone et al, 2017).
9.5: List of main conservation measures	MC03 Adapt/manage renewable energy installation, facilities and operation (excl. hydropower and abstraction activities): Guidance for the protection of marine European Protected Species from deliberate injury, killing and disturbance has been drafted (JNCC 2010a; Marine Scotland, 2014). Marine Industries generate a variety of noise through activities such as geophysical surveys (e.g. seismic surveys (JNCC 2017)), construction (e.g. pile driving (JNCC 2010b)) and decommissioning (e.g. use of explosives (2010c)). As part of the licencing procedures, developers and operators are required to utilise JNCC guidelines to minimise the risk of injury to cetaceans when undertaking such activities (JNCC, 2010b, 2010c; 2017; 2023; 2025; JNCC, Natural England & Cefas, 2025). The guidelines advise on conducting marine mammal observations prior to and during the activity and, where

	suitable, utilising procedures such as soft start (gradual introduction of the sound) to reduce and avoid direct harm to animals. A review of the marine mammal observer data demonstrated the effectiveness of soft start approach (Stone et al., 2017).
9.5: List of main conservation measures	MG05 Reduce bycatch and incidental killing of non-target species: The UK is implementing the EU Technical Conservation Measures Regulation transposed into UK regulations which lays down measures concerning incidental catches of vulnerable species in fisheries, and more generally the bycatch obligations within the Habitats Regulations. Since 2004, a dedicated bycatch monitoring programme has been in place, with both dedicated and non-dedicated onboard observers collecting data on bycatch numbers. These data inform implementation and potential effectiveness of measures such as pingers. There is a requirement for all fishing vessels over 12m using gill nets or entanglement nets to use pingers under the criteria laid out in the regulation. Inshore Vessel Monitoring System (iVMS) devices are being implemented for under-12 metre fishing vessels, allowing data on latitude, longitude, course and speed to be recorded and help improve the management and sustainability of the marine environment. Legislation to make iVMS mandatory on under-12 metre vessels is expected to come into effect in 2024 in England. In Scotland, consultation on the introduction mandatory electronic tracking for under-12 metre vessels was carried out in late 2023. Legislation requiring iVMS for under-12 metre vessels operating in Welsh waters has been in place since 2022. Since February 2022 it has been mandatory for under-10 metre fishing vessels in English and Welsh waters to create and submit a catch record for every fishing trip through the Catch Recording Application (Catch App or Record your Catch). Data is collected on vessel, trip, gear, area fished and catch and can be used to inform on fishing activity by gear type and species. Furthermore, the UK Marine Wildlife Bycatch Mitigation Initiative (published August 2022) aims to improve our understanding of bycatch and entanglement of sensitive marine species

	through monitoring and scientific research, identify 'hotspot" or high-risk areas/gear types/fisheries in which to focus monitoring and mitigation, and develop and implement effective measures to minimise bycatch/entanglement. Currently work is progressing towards development of a bycatch risk framework across all PET species to apply all available evidence and support targeted monitoring.
8.1: Characterisation of pressures	Humpback whales use a series of low-frequency sounds for communication and navigation, making them sensitive to noise pollution in the marine environment (Mercado, 2019). While there is little evidence of specific noise generating activities (e.g., offshore energy infrastructure development, increased shipping traffic) causing significant impact the movements and behaviours of humpback whales in UK waters, there is evidence of humpback whales increasing source levels with increased ambient noise levels (Fournet et al., 2018). Further, the cumulative impact of noise may be greater when combined.