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

2019-2024

Conservation status assessment for the species:

S2619 - Sei whale

(*Balaenoptera borealis*)

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 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: Sei whale

Distribution Map

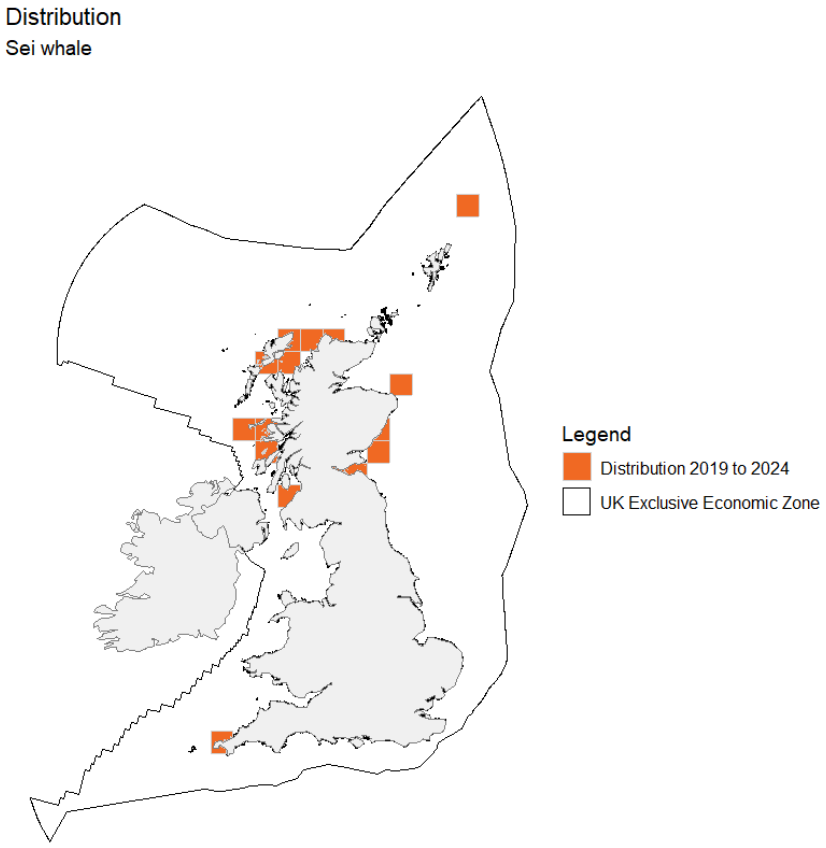

Figure 1: United Kingdom distribution map for S2619 - Sei whale (*Balaenoptera borealis*). The 50km grid square distribution map is based on available species records within the current reporting period.

Table 1: Table summarising the conservation status for S2619 - Sei whale (*Balaenoptera borealis*). 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)	**Unknown (XX)**
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	S2619
1.3 Species scientific name	*Balaenoptera borealis*
1.4 Alternative species scientific name	
1.5 Common name	Sei 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 Killer 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 and Cardigan Bay Marine Wildlife Centre.

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)

5.2 Short-term trend; Period

5.3 Short-term trend; Direction	Unknown
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	Insufficient or no data available

5.6 Long-term trend; Period

5.7 Long-term trend; Direction	Unknown
5.8 Long-term trend; Magnitude	
a) Minimum	

b) Maximum	
c) Rate of decrease	
5.9 Long-term trend; Method used	Insufficient or no data available

5.10 Favourable Reference Range (FRR)

a) Area (km²)	
b) Pre-defined increment	
c) Unknown	Yes
d) Method used	
e) Quality of information	

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

Sei whales are an uncommon sighting in UK waters, with only a small number reported each year. Occurrence may also be seasonal; passive acoutic monitoring regularly detected sei whale calls in offshore regions of West Scotland between October and November 2020 but detections were rare throughout the rest of the year (van Geel et al., 2022). This aligns with similar offshore detections west of Ireland (van Geel et al., 2022)

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

There are no abundance estimates available for sei whales within UK EEZ waters, as the occurrence and density of this species is low in the region.

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	Insufficient or no data available
b) Sufficiency of quality of occupied habitat; Method used	Insufficient or no data available

7.3 Short-term trend; Period

7.4 Short-term trend; Direction	Unknown
7.5 Short-term trend; Method used	Insufficient or no data available

7.6 Long-term trend; Period

7.7 Long-term trend; Direction	Unknown
7.8 Long-term trend; Method used	Insufficient or no data available

7.9 Additional information

No additional information

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
PX02: 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

No additional information

9. Conservation measures

9.1: Status of measures

a) Are measures needed?	No
b) Indicate the status of measures	
9.2 Main purpose of the measures taken	
9.3 Location of the measures taken	
9.4 Response to measures	

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
No conservation measures	

9.6 Additional information

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

11.7 Change and reason for change in conservation status trend

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	

11.8 Additional information

Conclusion on Range reached because: (i) the short-term trend direction in Range surface area is unknown and (ii) the current Range surface area is unknown.

Conclusion on Population reached because: (i) the best estimate for population size is unknown; and (ii) the short-term trend direction in Population size is unknown. However, it should be noted that due to historic whaling it is likely that sei whale populations are currently at significantly depleted levels (Ryan et al., 2022).

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 of the conclusions are Unknown.

Overall trend in Conservation Status is based on the combination of the shortterm trends for Range - unknown, 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

van Geel, N.C.F., Risch, D., Benjamins, S., Brook, T., Culloch, R.M., Edwards, E.W.J., Stevens, C., Wilson, B., 2022. Monitoring cetacean occurrence and variability in ambient sound in Scottish offshore waters. Frontiers in Remote Sensing. 3. https://doi.org/10.3389/frsen.2022.934681

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de Sousa Leal, M., 2021. Sei Whales (Balaenoptera Borealis): Photo Identification and Habitat Preferences of a Migrant Traveller in São Miguel, Azores (Master's thesis, Universidade do Algarve (Portugal)).

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Häussermann, V., Gutstein, C.S., Bedington, M., Cassis, D., Olavarria, C., Dale, A.C., Valenzuela-Toro, A.M., Perez-Alvarez, M.J., Sepúlveda, H.H., McConnell, K.M. and Horwitz, F.E., 2017. Largest baleen whale mass mortality during strong El Niño event is likely related to harmful toxic algal bloom. PeerJ, 5, p.e3123.

NOAA Fisheries. 2021. Sei whale (Balaenoptera borealis) 5-year review: Summary and evaluation.

Ohishi, K., Bando, T., Abe, E., Kawai, Y., Fujise, Y. and Maruyama, T., 2016. Long-term and large-scale epidemiology of Brucella infection in baleen whales and sperm whales in the western North Pacific and Antarctic Oceans. Journal of Veterinary Medical Science, 78(9), pp.1457-1464.

Pérez-Jorge, S., Tobeña, M., Prieto, R., Vandeperre, F., Calmettes, B., Lehodey, P. and Silva, M.A., 2020. Environmental drivers of large-scale movements of baleen whales in the mid-North Atlantic Ocean. Diversity and Distributions, 26(6), pp.683-698.

Redfern, J.V., Hodge, B.C., Pendleton, D.E., Knowlton, A.R., Adams, J., Patterson, E.M., Good, C.P. and Roberts, J.J., 2024. Estimating reductions in the risk of vessels striking whales achieved by management strategies. Biological Conservation, 290, p.110427.

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Ryan, C., Calderan, S., Allison, C., Leaper, R. and Risch, D., 2022. Historical occurrence of whales in Scottish Waters inferred from whaling records. Aquatic Conservation: Marine and Freshwater Ecosystems, 32(10), pp.1675-1692.

Main pressures

8.2 Sources of information

No sources of information

15. Explanatory Notes

Field label	Note
8.1: Characterisation of pressures	PX02 Threats and pressures from outside the Member State. Sei whales are considered a vagrant species in UK waters and thus, the main threats and pressures are outside of the Member State. Current evidence on the threats and pressures faced by sei whales and their impacts on population is limited. Studies have highlighted the potential impacts from climate change, including a changes in habitat suitability, a northward shift in distribution, changes in prey availability and increase in harmful algal blooms as a result of changing El Nino dynamics (de Sousa Leal, 2021; Davis et al., 2020; Perez-Jorge et al., 2019; Haussermann et al., 2017; NOAA Fisheries, 2021; Fisheries and Oceans Canada, 2022). However, sei whales may be resilient to some of these pressures. For example, the feeding range of sei whales is large and with suggested differences in foraging in different regions, the species may be able to adapt to changes in prey availability (NOAA Fisheries, 2021). Continued whaling of this species is also likely to be impacting on the population, especially considering that the population is already severely depleted from historic whaling (Cooke, 2018; Siddiqui et al., 2024). Habitat overlaps with shipping lanes/vessel strikes, entanglements, disturbance from anthropogenic noise, bacterial infections, and pollutants have also been noted as threats but the extent of the pressures and the impacts of population viability is uncertain (Borobia et al., 2023; Zantis et al., 2022; Redfern et al., 2024; Blazquez et al., 2024; Ohishi et al., 2016; NOAA Fisheries, 2021; Fisheries and Oceans Canada, 2022).