

Reporting under the Habitat Regulations (as amended)¹

2019-2024

Conservation status assessment for the species:

S2034 - Striped dolphin

(Stenella coeruleoalba)

United Kingdom



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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

For further information please contact:

Joint Nature Conservation Committee. Quay House, 2 East Station Road, Fletton Quays, Peterborough, PE2 8YY. <https://jncc.gov.uk>

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The views and recommendations presented in this resource do not necessarily reflect the views and policies of JNCC.

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 Conservation 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: Striped dolphin

Distribution and Range Map

Distribution and Range
Striped Dolphin



Figure 1: United Kingdom distribution and range map for S2034 - Striped dolphin (*Stenella coeruleoalba*). 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 S2034 - Striped dolphin (*Stenella coeruleoalba*). 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)	Favourable (FV)
Habitat for the species (see section 7)	Unknown (XX)
Future prospects (see section 10)	Unknown (XX)

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National Level

1. General information

1.1 Country	United Kingdom
1.2 Species code	S2034
1.3 Species scientific name	<i>Stenella coeruleoalba</i>
1.4 Alternative species scientific name	
1.5 Common name	Striped dolphin
Annex(es)	IV

2. Maps

2.1 Sensitive species	No
2.2 Year or period	2019-2024
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 striped dolphin 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) 67,500

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) 67,500

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 data of striped dolphin 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 striped dolphin has been defined for UK reporting requirements. Therefore, it is not possible to determine short or long term trends.

The UK is the northern limit of the striped dolphin range in the Northeast Atlantic. The occurrence of striped dolphin in UK waters is primarily focused in the offshore habitats of southwest England, with occasional sightings on the west of UK (Gilles, et al., 2022).

6. Population

6.1 Year or period	2022
6.2 Population size (in reporting unit)	
a) Unit	number of individuals
b) Minimum	307
c) Maximum	3,286
d) Best single value	1,005
6.3 Type of estimate	95% confidence interval
6.4 Quality of extrapolation to reporting unit	moderate
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	Complete survey or a statistically robust estimate
6.7 Short-term trend; Period	2016-2022
6.8 Short-term trend; Direction	Decreasing

6.9 Short-term trend; Magnitude	
a) Estimated minimum	
b) Estimated maximum	
c) Pre-defined range	Decreasing 51 - 100%
d) Unknown	No
e) Type of estimate	95% confidence interval
f) Rate of decrease	Decreasing >1% (more than one percent) per year on average
6.10 Short-term trend; Method used	Complete survey or a statistically robust estimate
6.11 Long-term trend; Period	2005-2022
6.12 Long-term trend; Direction	Uncertain
6.13 Long-term trend; Magnitude	
a) Minimum	
b) Maximum	
c) Confidence interval	
d) Rate of decrease	
6.14 Long-term trend; Method used	Complete survey or a statistically robust estimate
6.15 Favourable Reference Population (FRP)	
ai) Population size	637
aii) Unit	number of individuals
b) Pre-defined increment	
c) Unknown	No
d) Method used	Reference-based approach
e) Quality of information	low

6.16 Change and reason for change in population size

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

6.17 Additional information

There are only two abundance estimates available for striped dolphin within the UK EEZ from SCANS III (Hammond et al. 2021) and SCANS IV (Gilles, et al., 2023) which limits capacity to confidently identify trends. The current evidence suggests the population may be decreasing. However, due to the high confidence intervals surrounding abundance estimates, there is limited statistical power to detect genuine change in abundance.

The FRV for population was calculated based on estimates from SCANS III (Hammond et al., 2021), supplemented with density estimates from neighbouring regions to fill data gaps within the UK EEZ and limit extrapolation where possible; ObSERVE in Irish waters (Rogan, e CF45al., 2018), NASS 2015 (Pike, et al., 2019a) and NILS 2015 (Leonard and Øien, 2020a) surveys in the NAMMCO region.

Contrary to the smaller population estimate for this assessment compared to the outcomes from the Habitats Directive Article 17 (2019) assessment, evidence suggest we are likely to see an increase in records for this species in UK waters as populations range further northwards linked to changes in the environment (Williamson et al 2021). Therefore, the reason for change in population size is considered 'unknown'.

As short-term trend in population has been determined as decreasing, the pre-defined range field has been used to indicate a magnitude. However, population estimates have been calculated from large-scale surveys at approximately decadal intervals, and the confidence intervals associated with population estimates are wide. Thus, confidence in the magnitude is low.

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.

This is the first iteration of the range for striped dolphin in the UK, therefore it is not possible to assess any trends. The population abundance of striped dolphin using the UK EEZ waters declined in the short term, mainly driven by interannual variation likely in relation to prey availability. Due to the uncertainty in the available evidence, it is not possible to assess 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)
Mixed source marine water pollution (marine and coastal)	Ongoing and likely to be in the future	Medium (M)
Plant and animal diseases, pathogens and pests	Ongoing and likely to be in the future	Medium (M)
Residential, commercial and industrial activities and structures generating noise, light, heat or other forms of pollution	Ongoing	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)

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?	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
Adapt/manage exploitation of energy resources	High (H)
Adapt/manage renewable energy installation, facilities and operation (excl. hydropower and abstraction activities)	High (H)
Management of professional/commercial fishing, shellfish and seaweed harvesting (incl. restoration of habitats)	High (H)
Reduce bycatch and incidental killing of non-target species	High (H)
Reduce impact of mixed source pollution	High (H)
Control/eradication of illegal killing, fishing and harvesting of wild plants, fungi and animals	High (H)
Reduce impact of military installations and 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 Unknown (XX)

11.2 Population Favourable (FV)

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

Striped dolphin was assessed as a vagrant species during the last reporting round 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 unknown 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 decreasing; but (ii) the best estimate for population size is greater than the Favourable Reference Population.

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 with no conclusions Unfavourable.

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

Evidence suggests trends in distribution are becoming apparent for this species likely driven by climate change, which is contributing to some uncertainty in conclusions for future prospects for this species.

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

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Main pressures

8.2 Sources of information

No sources of information

15. Explanatory Notes

Field label	Note
8.1: Characterisation of pressures	<p>PG13 Bycatch and incidental killing (due to fishing and hunting activities). Striped dolphins are susceptible to bycatch in driftnet fisheries and were one of the most common reported bycaught species in driftnet albacore tuna fisheries in the northeast Atlantic (Antonie et al., 2001; Rogan & Mackey, 2007; Goujon, 1996; Brown et al., 2014). While driftnets are now prohibited for tuna fisheries, driftnet fisheries is still permitted for other species (Sala, 2016) and bycatch of striped dolphins in other gear types still exists (Brown et al., 2014) and have been reported in midwater other trawls in French waters and pelagic trawls in the Mediterranean (ICES, 2019). There is limited evidence from UK observer programmes of striped dolphin bycatch however, the offshore distribution reduces the chance of this issue being observed given limited bycatch observer effort and the reduced chance of dead animals stranding.</p>
8.1: Characterisation of pressures	<p>PK02 Mixed source marine water pollution (marine and coastal). The general impact of contaminants on cetaceans is well documented, including impacts on the immune system and reproduction, and the influence is long-term and intergenerational, with the pressure ubiquitous across the species range (Jepson et al, 2016; Storelli et al., 2012). In striped dolphins, abnormally high PCB levels have been correlated with morbillivirus infection (Domingo et al., 1990) and were seen in individuals impacted by the 1990-1992 Mediterranean epizootic (Aguilar et al., 1994). More recent analyses highlights that PCBs continue to impact on the population but DDTs and POPs may also pose risks to the population (Jepson et al., 2016; Williams et al., 2023). Trace metals have also been detected in stranded striped dolphins in the Mediterranean Sea (Martinez-Lopez et al., 2019). Microplastics have been found in stranded dolphins around the UK and in the Western Mediterranean Sea, although evidence is limited to the extent of the pressure</p>

	and the impacts on populations (Deaville, 2020; Novillo et al., 2020).
8.1: Characterisation of pressures	PI04 Plant and animal disease, pathogens and pests. Necropsies of stranded animals highlights consistent evidence of parasitic infestation and infection from pathogens and has been noted as cause of death in multiple animals between 2018 and 2022 (Deaville 2019:2024; Brownlow et al., 2019; Davison et al., 2020; Scottish Marine Animal Stranding Scheme, 2023).
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 no current evidence for the effects of climate change on bottlenose dolphins. The effect is likely to be mediated through variation in prey resource initially however, stable isotope analysis of striped dolphin diets showed little plasticity, implying that their ability to adapt to changes in prey availability is limited (Plint et al., 2023). It has also been noted that striped dolphins have high calorific requirements and strong preferences for higher caloric prey which may further impact on their ability to adapt to continued environmental change and changes in prey availability (Pierce et al., 2022). Little dietary overlap with other species may help mitigate this pressure (Plint et al., 2023).
8.1: Characterisation of pressures	PF12 Industrial or commercial activities and structures generating noise, light, heat or other forms of pollution. Cetaceans rely on echolocation for navigation, foraging and communication, making them sensitive to noise in the marine environment (Middel and Verones, 2017). Although various individual sources of disturbance have been identified as potential pressures in the pre-defined EU list, such as noise from shipping vessels or renewable energy devices, these pressures independently have not been identified as Medium or High risk to striped dolphins in UK waters. The cumulative effect of such disturbances however, has the potential to increase energy expenditure through avoidance and decreased foraging. Furthermore, excessive anthropogenic noise may have the potential for

	<p>auditory masking and reduced communication between individuals (Merchant et al., 2014). Noise from recreational boating has been highlighted as a potential stressor for striped dolphin in the Mediterranean Sea and it has been suggested that it may be a contributor to habitat loss in the Mediterranean Sea. However, there is limited evidence on the impact of anthropogenic noise on striped dolphin, particularly in UK waters.</p>
9.5: List of main conservation measures	<p>MG01 Management of professional/commercial fishing, shellfish and seaweed harvesting (incl. restoration of habitats). Fisheries Management Plans (FMPs) are currently being developed across all administrations for fisheries with perceived threats or pressures to the marine environment. FMPs are required under the Fisheries Act 2020 which provides the framework for management fisheries outside the EU Common Fisheries Policy. The Joint Fisheries Statement (agreeing the delivery of the 8 objectives of the Fisheries Act 2020) sets out plans for 43 FMPs. Publication of FMPs started last year and is expected to continue for 2-3 years. Some are being jointly developed, others by a single authority for its own waters. 6 FMPs have now been published.</p>
9.5: List of main conservation measures	<p>MK01 Reduce impact of mixed source pollution: The impact of chemical pollution on sperm whales remains an issue (Jepson et al, 2016), however, establishing measures beyond the historic ban on PCB use, has not been achieved to date. Further information is required to understand where exposure is occurring to be able to identify appropriate measures.</p>
9.5: List of main conservation measures	<p>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</p>

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.

9.5: List of main conservation measures

MH01 Reduce impact of military installations and activities. To reduce the risk of noise impact on marine mammals, the UK Ministry of Defence (MOD) has a Statement of Intent with UK Statutory Nature Conservation Bodies concerning conduct in relation to marine disturbance. The MOD has developed a real-time alert procedure for naval training operations. This enables localised information on cetacean

	sightings to be incorporated into the training schedule and for operations to be relocated if necessary.
9.5: List of main conservation measures	MG04 Control/eradication of illegal killing, fishing and harvesting: The Habitats Directive is transposed into UK law under the Habitat Regulations (HR) for England and Wales (as amended) and the Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended), which make it an offence to kill, injure, capture or disturb European marine protected species. Similar legislation exists for Scottish and Northern Irish inshore waters.
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).