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:

S1350 - Common dolphin (*Delphinus delphis*)

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.

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NATIONAL LEVEL	
1. General information	
1.1 Member State	**UK**
1.2 Species code	**1350**
1.3 Species scientific name	**Delphinus delphis**
1.4 Alternative species scientific name	
1.5 Common name (in national language)	Common dolphin

2. Maps

2.1 Sensitive species	No
2.2 Year or period	2013-2018
2.3 Distribution map	Yes
2.4 Distribution map Method used	Based mainly on extrapolation from a limited amount of data
2.5 Additional maps	No

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

3.1 Is the species taken in the wild/exploited?	No	
3.2 Which of the measures in Art. 14 have been taken?	a) regulations regarding access to property	No
	b) temporary or local prohibition of the taking of specimens in the wild and exploitation	No
	c) regulation of the periods and/or methods of taking specimens	No
	d) application of hunting and fishing rules which take account of the conservation of such populations	No
	e) establishment of a system of licences for taking specimens or of quotas	No
	f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens	No
	g) breeding in captivity of animal species as well as artificial propagation of plant species	No
	h) other measures	No

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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	No

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

BIOGEOGRAPHICAL LEVEL

4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs	**Marine Atlantic (MATL)**
4.2 Sources of information	Baines ME, Evans PGH (2012) Atlas of the Marine Mammals of Wales. 2nd Edition. Marine Monitoring Report No. 68. Countryside Council for Wales, Bangor. Brophy, J., Murphy, S. & Rogan, E. (2009). The diet and feeding ecology of the common dolphin (Delphinus delphis) in the northeast Atlantic. IWC Scientific Committee Document SC/61/SM14. Cambridge, UK: International Whaling Commission. CODA, 2009. Cetacean Offshore Distribution and Abundance in the European Atlantic (CODA). Final Report, 43pp. http://biology.st-andrews.ac.uk/coda/documents/CODA_Final_Report_11-2-09.pdf Deaville, R. (2011:2017). Annual reports for the period 1st January to 31st December. UK Cetacean Strandings Investigation Programme (CSIP). http://ukstrandings.org/csip-reports/ DG Environment. (2017). Reporting under Article 17 of the Habitats Directive: Explanatory notes and guidelines for the period 2013-2018. Brussels. Pp 188 http://cdr.eionet.europa.eu/help/habitats_art17 Evans. D and Marvela, A. (2013). Assessment and reporting under Article 17 of the Habitats Directive: Explanatory notes and Guidelines. 123pp. https://circabc.europa.eu/faces/jsp/extension/wai/navigation/container.jsp Evans, P.G.H., and Teilmann, J. (2009). Report of ASCOBANS/HELCOM small cetacean population structure workshop, ASCOBANS, Bonn, Germany. Hammond, P. S., Lacey, C., Gilles, A., Viquerat, S., Borjesson, P., Herr, H., Macleod, K., Ridoux, V., Santos, M. B., Scheidat, M., Teilmann, J., Vingada, J & Oien, N. (2017). Estimates of cetacean abundance in European Atlantic waters in summer 2016 from the SCANS-III aerial and shipboard surveys. Available here:

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Heiler,j., Elwen, S. H., Kriesell, H. J & Gridley, T. (2016). Changes in bottlenose dolphin whistle parameters related to vessel presence, surface behaviour and group composition. Animal Behaviour, 117:167-177. https://doi.org/10.1016/j.anbehav.2016.04.014.

ICES (2016). Working Group on Bycatch of Protected Species (WGBYC), 1-5 February 2016, ICES HQ, Copenhagen, Denmark. ICES CM 2016/ACOM:27. 82 pp.

Jepson, P. D., Deaville, R., Barber, J. L., Aguilar, A., Borrell, A., Murphy, S., et al. (2016). PCB pollution continues to impact populations of orcas and other dolphins in European waters. Scientific Reports, 6: 1-17. https://doi.org/10.1038/srep18573.

Jepson, P.D., Deaville, R., Acevedo-Whitehouse, K., Barnett, J., Brownlow, A., Brownell Jr,. R. L., et al. (2013) What Caused the UK's Largest Common Dolphin (Delphinus delphis) Mass Stranding Event? PLoS ONE 8(4): e60953. https://doi.org/10.1371/journal.pone.0060953

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Marine Scotland (2014). The protection of Marine European Protected Species from injury and disturbance. Guidance for Scottish Inshore Waters: http://www.gov.scot/Resource/0044/00446679.pdf

Murphy, S., Pinn, E., & Jepson, P. (2013). The short-beaked common dolphin (Delphinus delphis) in the North-eastern Atlantic: distribution, ecology, management and conservation status. In: Hughes RN, Hughes DJ, Smith IP, eds. CRC Press. Oceanography and Marine Biology Vol 51: 193-280.

Northridge, S., Kingston, A and Thomas, L. (2017). Annual report on the implementation of Council Regulation (EC) No 812/2004 during 2016.

Paxton, C. G. M, Scott-Hayward, L., Mackenzie, M., Rexstad, E & Thomas, L. (2016). Revised Phase III Data Analysis of Joint Cetacean Protocol Data Resources with Advisory Note (2016). JNCC Report 517. http://jncc.defra.gov.uk/page-7201

Santos, M.B., Pierce, G.J., Lopez, A., Martinez, M.T., Fernandez, M.T., Ieno, E., Mente, E., Porteiro, P., Carrera, P. & Meixide, M. (2004). Variability in the diet of common dolphins (Delphinus delphis) in Galician waters 1991-2003 and relationships with prey abundance. ICES Conference and Meeting (CM) Document 2004/Q:09. Copenhagen, Denmark: International Council for the

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

Young, D.D. & Cockcroft, V.G. (1994). Diet of common dolphin (Delphinus delphis) off the south-east coast of southern Africa: opportunism or specialization? Journal of Zoology, 234:41-53.

5. Range

5.1 Surface area (km²)	783562	
5.2 Short-term trend Period	1994-2018	
5.3 Short-term trend Direction	Stable (0)	
5.4 Short-term trend Magnitude	a) Minimum	b) Maximum
5.5 Short-term trend Method used	Based mainly on extrapolation from a limited amount of data	
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

a) Area (km²)	783562	
b) Operator		
c) Unknown		
d) Method	Range estimated for the current period matches the range given in the 2013 reporting round (excluding analytic differences).	

5.11 Change and reason for change in surface area of range

Use of different method

The change is mainly due to: Use of different method

5.12 Additional information

Range estimated for the current period matches the range given in the 2013 reporting round (excluding analytical differences). This range is considered sufficient and includes all significant ecological variations to ensure survival of the species. Areas within the range are utilised to a lesser or greater extent.

6. Population

6.1 Year or period	2016	

6.2 Population size (in reporting unit)

a) Unit	number of individuals (i)
b) Minimum	31735
c) Maximum	117203
d) Best single value	60988

6.3 Type of estimate 95% confidence interval

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6.4 Additional population size (using population unit other than reporting unit)	a) Unit	
	b) Minimum	
	c) Maximum	
	d) Best single value	
6.5 Type of estimate		
6.6 Population size Method used	Complete survey or a statistically robust estimate	
6.7 Short-term trend Period	2005-2016	
6.8 Short-term trend Direction	Unknown (x)	
6.9 Short-term trend Magnitude	a) Minimum	
	b) Maximum	
	c) Confidence interval	
6.10 Short-term trend Method used	Insufficient or no data available	
6.11 Long-term trend Period		
6.12 Long-term trend Direction		
6.13 Long-term trend Magnitude	a) Minimum	
	b) Maximum	
	c) Confidence interval	
6.14 Long-term trend Method used		
6.15 Favourable reference population (using the unit in 6.2 or 6.4)	a) Population size	
	b) Operator	
	c) Unknown	x
	d) Method	
6.16 Change and reason for change in population size	Genuine change	
	The change is mainly due to: Genuine change	
6.17 Additional information	The estimate of population size (6.2) is given as a point estimate (6.2d) with the corresponding 95% confidence intervals (6.2b&c). The abundance estimate is considerably higher than that of the last reporting round in 2013, with no overlap between the confidence intervals of both estimates, indicating that there is a significant difference between the two values. However, as there are only two abundance estimates covering the entire UK range for this species, it is not possible to disentangle trends from fluctuations in natural abundance.	

7. Habitat for the species

7.1 Sufficiency of area and quality of occupied habitat	a) Are area and quality of occupied habitat sufficient (for long-term survival)?	Unknown
	b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?	
7.2 Sufficiency of area and quality of occupied habitat Method used	Based mainly on expert opinion with very limited data	
7.3 Short-term trend Period	2007-2018	

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7.4 Short-term trend Direction	Unknown (x)
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	
7.8 Long-term trend Method used	
7.9 Additional information	

8. Main pressures and threats

8.1 Characterisation of pressures/threats

Pressure	Ranking
Industrial or commercial activities and structures generating noise, light, heat or other forms of pollution (F25)	M
Marine fish and shellfish harvesting (professional, recreational) causing reduction of species/prey populations and disturbance of species (G01)	M
Bycatch and incidental killing (due to fishing and hunting activities) (G12)	H
Mixed source marine water pollution (marine and coastal) (J02)	M

Threat	Ranking
Industrial or commercial activities and structures generating noise, light, heat or other forms of pollution (F25)	M
Marine fish and shellfish harvesting (professional, recreational) causing reduction of species/prey populations and disturbance of species (G01)	M
Bycatch and incidental killing (due to fishing and hunting activities) (G12)	H
Mixed source marine water pollution (marine and coastal) (J02)	M
Decline or extinction of related species (e.g. food source / prey, predator / parasite, symbiote, etc.) due to climate change (N07)	M

8.2 Sources of information	
8.3 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 the measures		

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9.5 List of main conservation measures	

9.6 Additional information	This species is not an Annex II species under the Habitats Directive, therefore conservation measures stipulated in the Directive are not required. This is reflected in the UK response to field 9.1 (with no measures listed under field 9.5). However, the UK has been committed to supporting several international agreements and conventions on the conservation of marine mammals and the marine environment in general. For example: The Convention on Migratory Species; the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR). A UK Dolphin and Porpoise Conservation Strategy is currently in development, due for publication in 2019. The strategy is intended to support decision making and identify actions necessary to maintain or improve the conservation status of small cetaceans in UK waters. The UK Government funds a national strandings scheme, ongoing since 1990, which aims to: collate, analyse and report data for all cetacean strandings around the coast of the UK; determine the causes of death 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. These considerations for this species most closely equate to the following five measures in the EU conservation measures list: Reduce impact of mixed source pollution (CJ01) Reduce impact of military installations and activities (CH01) Control/eradication of illegal killing, fishing and harvesting (CG04) Reduce bycatch and incidental killing of non-target species (CG05) Adapt/manage exploitation of energy resources (CC02).

10. Future prospects

10.1 Future prospects of parameters	a) Range	Good
	b) Population	Unknown
	c) Habitat of the species	Unknown

10.2 Additional information	These results are based on the current conservation status for each parameter combined with the future trend for each parameter. The future trend is an estimate of how the parameter is likely to progress into the future, using the current trend as a baseline and considering the balance between threats and measures to assess how these are likely to affect that trend over the next two reporting cycles (12 years). For common dolphin, the future trend of Range is assessed as Overall Stable. As the current conservation status for Range is Favourable for this species, the future prospects are considered Good. The future trend and consequently the future prospects for the Population and Habitat parameters are assessed as Unknown; this is due to there being insufficient data to establish current trends for these parameters

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)

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11.5 Overall assessment of Conservation Status	Unknown (XX)
11.6 Overall trend in Conservation Status	Unknown (x)
11.7 Change and reasons for change in conservation status and conservation status trend	a) Overall assessment of conservation status Use of different method The change is mainly due to: Use of different method b) Overall trend in conservation status No change The change is mainly due to:
11.8 Additional information	Conclusion on Range reached because: (i) the short-term trend direction in Range surface area is stable and (ii) the current Range surface area is approximately equal to the Favourable Reference Range. Conclusion on Population reached because: (i) the FRP is unknown; and (ii) the short-term trend direction in Population size is unknown. Conclusion on Habitat for the species reached because: (i) the area of habitat is sufficiently large but (ii) the habitat quality is unknown 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 good but; (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 short-term trends for Range - stable, Population - unknown, and Habitat for the species - unknown.

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)	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 Additional information	

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13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

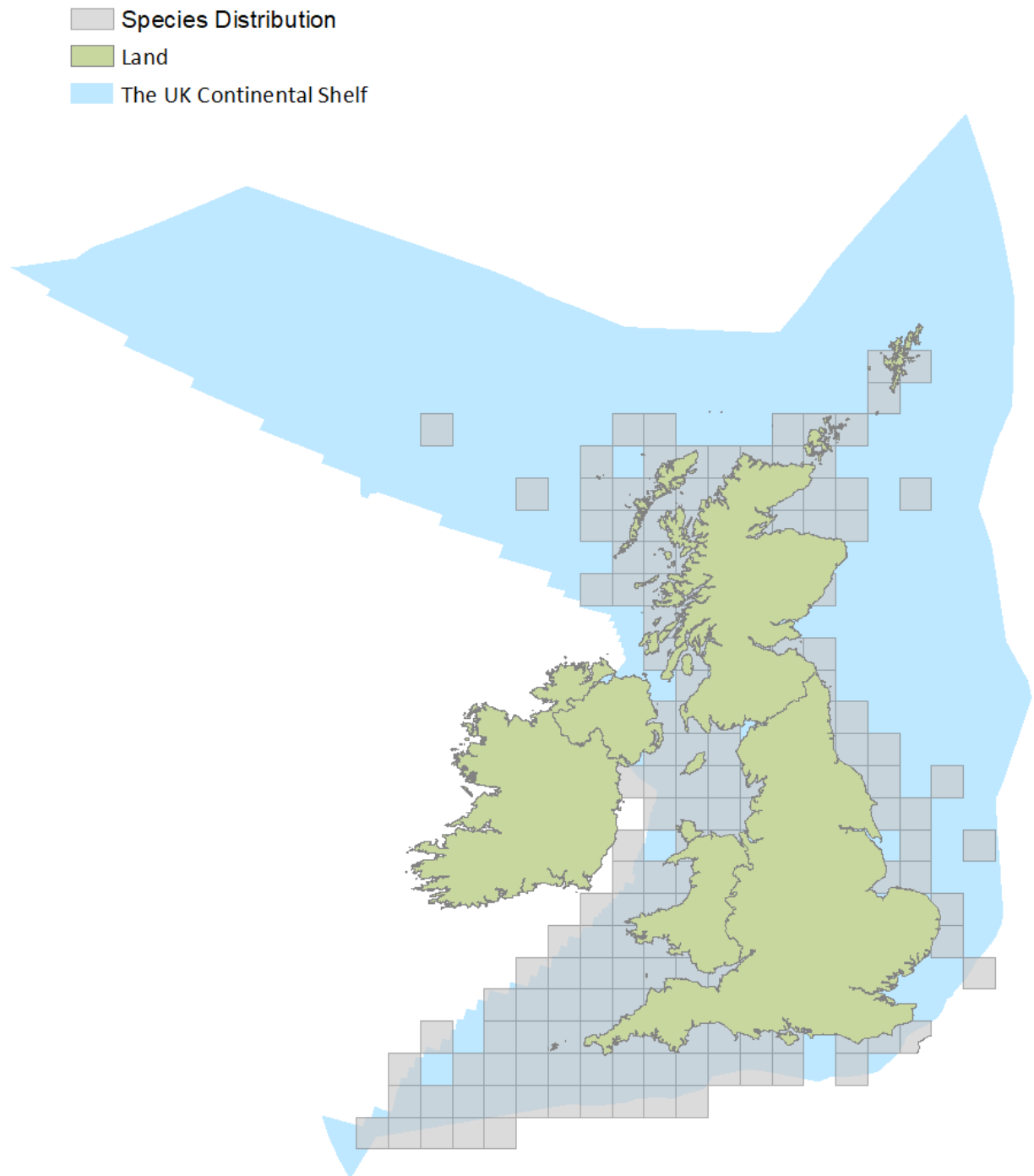13.3 Other relevant Information

Distribution Map

Figure 1: UK distribution map for S1350 - Common dolphin (*Delphinus delphis*).

The 50km 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.

Range Map
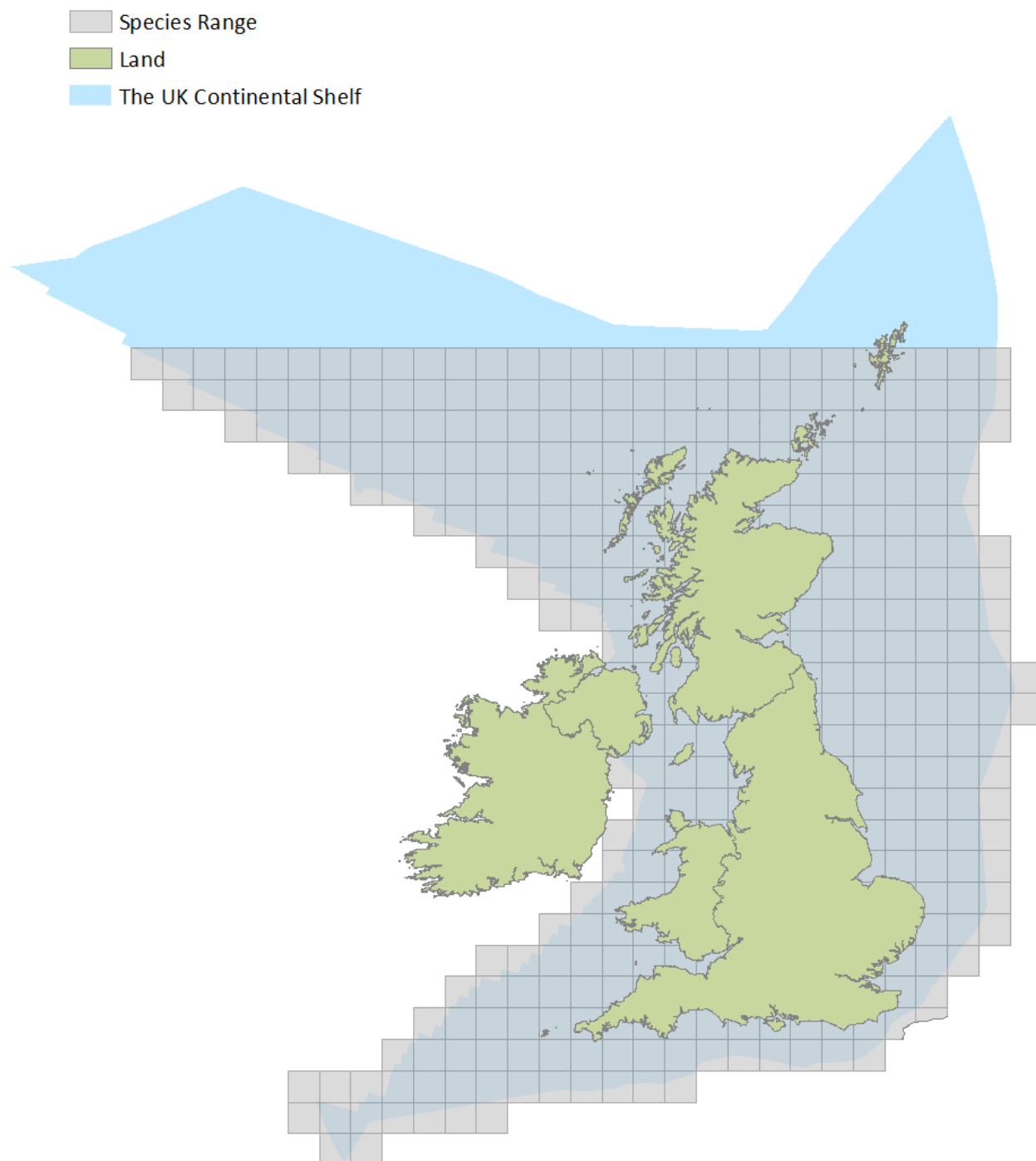
Figure 2: UK range map for S1350 - Common dolphin (*Delphinus delphis*).

The range for the 2013-2018 report was based on an analysis of effort related survey data spanning 1994-2010 compiled for the Joint Cetacean Protocol (JCP) undertaken by Paxton et al. (2016). The estimated range was based on a modelled prediction of Common dolphin (*Delphinus delphis*) distribution

during August 2010 (see Paxton et al., 2016 for further detail) and adapted based on additional sightings data and expert knowledge for the current reporting period. The range was mapped using a grid of 50x50km resolution and projected to ETRS LAEA 5210.

Explanatory Notes

Species name: Delphinus delphis (1350)

Field label	Note
2.1 Sensitive species	This refers to sensitivities around publishing distribution data.
2.3 Distribution map	The distribution map (Annex A) is a good representation of common dolphin in coastal and shelf areas but is biased towards areas with greater survey effort and high densities of animals. As a result, the offshore component appears under-represented and it is likely that the species can be found anywhere within their range (Annex B). Common dolphins are less common in northern UK waters, and occur in highest densities around the south-west (Baines and Evans, 2012; Murphy et al., 2013). Although they are found in the North Sea, densities are typically low and this is reflected in the distribution data obtained. The species is found in offshore waters, but due to lower survey effort, their presence in these areas is underrepresented in the distribution map and more closely resembles the species distribution in coastal and shelf waters. The range given in Section 2.5 is expected to be a better reflection of their wider distribution. The distribution map is based on actual sightings of common dolphin, covering the UK Exclusive Economic Zone (EEZ) and UK Continental Shelf area (hereafter referred to as 'UK waters') between 2013 and 2018. Sightings data were collated from the SCANS-III, National Biodiversity Network, SeaWatch Foundation, MARINElife and ORCA datasets and includes both effort related sightings and confirmed opportunistic sightings collected from land-based, ship-based and aerial platforms during this period.
2.5 Additional maps	Predicted core range for common dolphin in UK waters (Annex B). Although the species may occasionally occur in northerly waters, the range presented illustrates where the species occurs most commonly and consistently within the UK. The common dolphin is a wide-ranging species and single population throughout the Northeast Atlantic. No evidence of change since 2013 reporting round. The 2013 range was based on an analysis of effort-related survey data spanning 1994-2010 compiled for the Joint Cetacean Protocol (JCP) undertaken by Paxton et al. (2016). The estimated range was based on a modelled prediction of white-sided dolphin distribution during August 2010 and adapted based on additional sightings data and expert knowledge (see Paxton et al., 2016 for further detail).

Species name: Delphinus delphis (1350) Region code: MATL

Field label	Note
5.3 Short term trend; Direction	Range for the current report (783,562km2) is equal to the range presented in the 3rd reporting round (780,779km2).
5.5 Short term trend; Method used	The 2013 reported range was based on an analysis of effort related survey data compiled for the JCP undertaken by Paxton et al. (2016). The distribution data collated for the current report was compared with the predicted range from the 2013 report. As there was no discernible difference between the 3rd (2013) and 4th (2019) reporting rounds, the range is considered stable.
5.10 Favourable reference range	The favourable reference range is approximately equal to the surface area given in Section 5.1.
5.11 Change and reason for change in surface area of range	Range is considered stable but there is a minor difference in the range value between this report and the 3rd reporting round (2013). The difference is due to the use of a slightly different grid template and does not represent an actual difference in the species range between reporting rounds.
6.1 Year or Period	This is when the SCANS-III survey was conducted (Hammond et al. 2017).

6.2 Population size	SCANS-III block estimates of density have been pro-rated across UK waters. Minimum and maximum are the lower and upper 95% confidence intervals respectively. The best single value is the point estimate.
6.6 Population size; Method used	The SCANS-III survey was designed to provide robust estimates of cetacean abundance. The survey provides coverage of UK EEZ waters. The area west of the EEZ out to the UK Continental Shelf boundary was assumed to have the same density of animals as the adjacent survey block from SCANS-III. The resulting estimates are considered statistically robust.
6.8 Short term trend; Direction	The estimate for the UK population in 2016 (SCANS-III) is greater than the revised 2005 estimate (revised SCANS-II). The difference between the 2 estimates is ~45,000 animals and the range of values around the best abundance, shown by the confidence intervals, do not overlap indicating a statistically significant difference between the estimates. SCANS-II & CODA (revised) 2005 population estimate: 14,609 Lower 95% CI: 9,567 Upper 95% CI: 22,309. SCANS-III 2016 population estimate: 60,988 Lower 95% CI: 31,735 Upper 95% CI: 117,203. Short-beaked common dolphins are highly mobile and the UK animals are part of a single Northeast Atlantic population (Evans & Teilmann, 2009). The SCANS surveys take place in only one month of one year at approximately decadal intervals and the increase in abundance likely represents a redistribution of animals into UK waters from other areas of their range, which extends out of EU waters. Without a time-series of data we cannot accurately assess whether this denotes an actual trend in abundance or a natural fluctuation.
6.10 Short term trend; Method used	The available data are insufficient to assess whether common dolphin abundance has changed in UK waters over the short-term as a minimum of three population estimates are required before trends can be explored. There are currently only two abundance estimates for common dolphin which cover UK waters. Due to the wide confidence intervals surrounding abundance estimates for this species, even with three estimates the statistical power to detect anything beyond a dramatic change is likely to be limited.
6.15 Favourable reference population	This is the second reliable abundance estimate following a dedicated survey covering UK waters for this species. The 3rd UK Article 17 report set an FRV for common dolphin abundance. This was based on the population estimate, derived from the SCANS II (2005) and CODA (2007) surveys. This value has subsequently been updated to reflect changes in how the original estimate was derived (detailed in Hammond et al., 2017). However, with only two reliable population estimates we cannot assess trend for this species and without reliable trend information it is not possible to state whether either of these estimates represents a favourable reference population. The FRP is therefore currently Unknown.
6.16 Change and reason for change in population size	The point estimate for the abundance of common dolphin in UK waters for 2016 is significantly higher than the abundance calculated for the 2013 report (based on revised SCANS-II (2005) estimate), indicating a genuine change. The abundance of common dolphins in UK waters varies seasonally, with a general peak in autumn but also high numbers in May and June. Paxton et al (2016) found that there also appeared to be a common dolphin population oscillation on an approximately decadal time scale. Although there appears to be an increase in UK waters, this most likely represents a redistribution of animals into UK waters from neighbouring areas. Despite a significant increase in abundance in UK waters, there are too few data points to confidently conclude this as a stable or increasing trend.
7.1 Sufficiency of area and quality of occupied habitat	As data relating to habitat quality is limited for cetaceans, the assessment of this parameter is based on the conclusions for range and population as a proxy for habitat. Although common dolphin range is considered stable, with only two data points relating to their abundance at the UK scale it is not possible to explore trends and must conclude that the population parameter for this species is Unknown. As the population parameter is Unknown, we cannot conclude that the supporting habitat is sufficient.

8.1 Characterisation of pressures/ threats	General information for short-beaked common dolphin: Pressure ranking for short-beaked common dolphin is mainly based on expert opinion and data from post mortem of stranded animals, which indicate sources of mortality for this species. Between 2000-2017, 2051 common dolphins were reported as stranded in the UK, of which 510 were examined at post mortem by the UK Cetacean Strandings Investigation Programme (UK CSIP). The main causes of death were bycatch (41%), live stranding (22%), and starvation (6%) (Deaville 2011:2017). A literature search was carried out to support the assessments. The UK Dolphin and Porpoise Conservation Strategy (initial draft presented to stakeholders in April 2018) was used in support of identification of pressures and threats.
8.1 Characterisation of pressures/ threats	N07 Decline or extinction of related species (e.g. food source / prey, predator / parasite, symbiot, etc.) due to climate change: Application of pressure: Used to identify risk from climate change. The effects of climate change on common dolphins is likely to be mediated through variation in prey resource initially. Common dolphins are opportunistic feeders (Young & Cockcroft 1994) and tend to select prey based on energy densities (Santos et al., 2004; Brophy et al., 2009; Spitz et al., 2010). They show seasonal changes in prey preferences (Murphy et al. 2013) indicating they are likely to be able to adapt to changes in prey as a result of changes in climate.
8.1 Characterisation of pressures/ threats	F25 Industrial or commercial activities and structures generating noise, light, heat or other forms of pollution: Application of pressure: Used to identify risk of the cumulative effects of noise on cetaceans. Cetaceans rely on echolocation for navigation, foraging and communication, making them sensitive to noise in the marine environment. Although different sources of disturbance have been identified as potential pressures in the pre-defined EU list, these pressures independently have not been identified as Medium or High risk to common dolphins in UK waters. The cumulative impact of these and other sources of noise disturbance may, however, be greater when combined, which may impact distribution and communication as shown for similar species (Heiler et al, 2016).
8.1 Characterisation of pressures/ threats	G01 Marine fish and shellfish harvesting (professional, recreational) causing reduction of species/prey populations and disturbance of species: Application of pressure: Used to identify risk from prey depletion and disturbance due to fishing activity. A lack of food has a direct and immediate influence on the individual. Starvation is identified as an important cause of death for common dolphins in UK waters, where 6% of post mortem analyses (32 of 510 individuals examined) between 2000 and 2017 confirmed starvation as the cause of death. It should be noted, however, that prey depletion can result from both natural and anthropogenic causes. No link has been identified between commercial fishing practices and the cases of cetacean starvation recorded through the UK Cetacean Strandings Investigation Programme.
8.1 Characterisation of pressures/ threats	J02 Mixed source marine water pollution (marine and coastal): Application of pressure: Used to identify risk from marine and coastal pollution. The general impact of contaminants on cetaceans is well documented, including impacts on the immune system and reproduction (Jepson et al., 2016). The concentration is highly dependent on the age, sex, reproductive state and nutritional condition of the animals in addition to the intake via the food web. Analysis conducted as part of the investigation into a mass stranding event in the south-west of England indicated that levels of harmful algal toxins and organochlorines (e.g. DDT) were relatively low, with lower values than animals analysed that stranded in the same area between 1990 - 1992 (Jepson et al, 2013). However, all mature females in the 2013 analysis (5 out of 26) were lactating and therefore likely to be offloading any burden.

8.1 Characterisation of pressures/ threats	G12 Bycatch and incidental killing (due to fishing and hunting activities): Application of pressure: Used to identify risk from bycatch in active fishing gears. ICES have advised the EU that annual removals of common dolphin in the Northeast Atlantic may exceed safe limits in terms of a sustainable population (WGBYC, 2016). The UK Cetacean Strandings Investigation Programme has identified bycatch as the most important anthropogenic cause of death in this species, with 41% (206 of the 510 animals examined) between 2000-2017 confirmed as bycatch cases. The UK Bycatch Monitoring Scheme also regularly records common dolphin bycatch, particularly in the south-west of England. Bycatch estimates for common dolphins in the UK fleet in 2016 were 285 animals (range 137-922) (Northridge et al. 2017). The pressure is recognised as potentially having an important direct and immediate influence on the population, operating across a large portion of the species range.
9.5 List of main conservation measures	CJ01 Reduce impact of mixed source pollution: The impact of chemical pollution on short-beaked common dolphins 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.
9.5 List of main conservation measures	CH01 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	CG04 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	CG05 Reduce bycatch and incidental killing of non-target species: The UK is implementing the European Council Regulation EC 812/2004, which lays down measures concerning incidental catches of cetaceans in fisheries, and more generally the bycatch obligations within the Habitats Directive. Since 2004, a dedicated bycatch monitoring scheme has been in place, managed by the Sea Mammal Research Unit at University of St Andrews, 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.
9.5 List of main conservation measures	CC02 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; JNCC 2017). 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).

10.1 Future prospects of parameters	10.1a Range: The overall assessment of this parameter is favourable and there is no evidence that risk is increasing in the next 12 years (two reporting rounds). 10.1b Population: Insufficient information to assess the status of this parameter. Although the pressures impacting this parameter are not thought to be increasing and there are no threats identified which are likely to impact in the next 12 years, the uncertainty surrounding the current status of this parameter make it impractical to predict future prospects. 10.1c Habitat of the species: The conclusion for the current habitat assessment is unknown due to there being insufficient. Insufficient reliable information to assess the status of this parameter. Although the pressures impacting this parameter are not thought to be increasing and there are no threats identified which are likely to impact in the next 12 years, the uncertainty surrounding the current status of this parameter make it impractical to predict future prospects.
11.1 Range	There is no evidence to suggest range has changed since the last reporting round (2013) and the range assessment therefore remains Favourable.
11.2 Population	The FRP is Unknown. Therefore, the current abundance cannot be compared to the FRP and the conclusion for population is Unknown.
11.3 Habitat for the species	Range is Favourable but population is Unknown. Therefore, the quality of habitat for the species cannot be inferred in the absence of population information.
11.4 Future prospects	There are two or more Unknown results (population and habitat) therefore future prospects are Unknown.
11.5 Overall assessment of Conservation Status	There are two or more Unknown results (population, habitat and future prospects) therefore the overall assessment of conservation status is Unknown.
11.7 Change and reasons for change in conservation status and conservation status trend	The assessment has changed from Favourable in the UK 3rd reporting round (2013) to Unknown due to a revised approach to dealing with limited data and interpretation of the guidance relating to the Favourable Reference Values (FRVs). According to the Art17 reporting guidance (DG Environment, 2017) assessment of the population parameter is based on how the current estimate compares with the Favourable Reference Population (FRP). A population is considered Favourable if the species abundance estimate is not below the FRP. Due to data limitations, cetacean FRPs were set based on the best UK abundance estimates made as close in time as possible to when the Habitats Directive was adopted. This approach was taken in the UK 3rd reporting round (2013) and was supported by the Article 17 Guidance at the time (Evans and Marvela, 2013). However, the UKs interpretation of the FRP concept has changed between reporting rounds and concludes that information on trends needs to be understood to set an FRP. A minimum of three data points is required to explore trends and considering the large confidence intervals associated with cetacean abundance estimates, the statistical power to detect anything beyond a dramatic change is likely to be limited from only three estimates. Where less than three data points are available, identification of trends is not possible. The change in the overall conclusion is therefore driven by this change in approach between the reporting rounds.