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:

S2030 - Risso's dolphin (*Grampus griseus*)

UNITED KINGDOM

IMPORTANT NOTE - PLEASE READ

- The information in this document represents the UK Report on the conservation status of this species, submitted to the European Commission as part of the 2019 UK Reporting under Article 17 of the EU Habitats Directive.

- It is based on supporting information provided by the geographically-relevant Statutory Nature Conservation Bodies, which is documented separately.

- The 2019 Article 17 UK Approach document provides details on how this supporting information contributed to the UK Report and the fields that were completed for each parameter.

- The reporting fields and options used are aligned to those set out in the European Commission guidance.

- Maps showing the distribution and range of the species are included (where available).

- Explanatory notes (where provided) are included at the end. These provide additional audit trail information to that included within the UK assessments. Further underpinning explanatory notes are available in the related country-level reports.

- Some of the reporting fields have been left blank because either: (i) there was insufficient information to complete the field; (ii) completion of the field was not obligatory; and/or (iii) the field was not relevant to this species (section 12 Natura 2000 coverage for Annex II species).

- The UK-level reporting information for all habitats and species is also available in spreadsheet format.

Visit the JNCC website, https://jncc.gov.uk/article17, for further information on UK Article 17 reporting.

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

NATIONAL LEVEL	
1. General information	
1.1 Member State	**UK**
1.2 Species code	**2030**
1.3 Species scientific name	**Grampus griseus**
1.4 Alternative species scientific name	
1.5 Common name (in national language)	Risso's 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

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

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.

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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

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frequency components of ship noise in shallow water with a discussion of implications for harbor porpoises (Phocoena phocoena). The Journal of the Acoustical Society of America, 136(4): 1640-1653. https://doi.org/10.1121/1.4893908

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

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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 here: http://jncc.defra.gov.uk/pdf/JNCC_Guidelines_Piling protocol_August 2010.pdf.

JNCC (2010c). JNCC guidelines for minimising the risk of injury to marine mammals from using explosives. August 2010. Available here: http://jncc.defra.gov.uk/pdf/JNCC_Guidelines_Explosives Guidelines_August 2010.pdf

JNCC (2017). JNCC guidelines for minimising the risk of injury to marine mammals from geophysical surveys Available here: http://jncc.defra.gov.uk/pdf/jncc_guidelines_seismicsurvey_aug2017.pdf

Kim GB, Tanabe S, Iwakiri R, Tatsukawa R, Amano M, Miyazaki N, Tanaka H. (1996). Accumulation of butyltin compounds in Risso's dolphin (Grampus griseus) from the Pacific coast of Japan: comparison with organochlorine residue pattern. Environ Sci Technol; 30:2620-2625.

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

Marsili L., & Focardi S. (1997). Chlorinated hydrocarbon (HCB, DDTs and PCBs) levels in cetaceans stranded along the Italian coasts: an overview. Environmental Monitoring and Assessment, 45:129-180.

Middel, H., & Verones, F. (2017). Making marine noise pollution impacts heard: The case of cetaceans in the North Sea within life cycle impact assessment. Sustainability (Switzerland), 9(7). https://doi.org/10.3390/su9071138

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

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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

Storelli, N., Zizzo, G., & Marcotrigiano, O. (1999). Heavy metals and methylmercury in tissues of Risso's dolphin (Grampus griseus) and Cuvier's beaked whale (Ziphius cavirostris) stranded in Italy. Bulletin of Environmental Contamination and Toxicology, 63:703-710.

Visser, F., Hartman, K.L., Rood, E.J.J., Hendriks, A.J.E., Zult, D.B., Wolff, W.J., Huisman, J., & Pierce, G.J. (2011). Risso's dolphins alter daily resting pattern in response to whale watching at the Azores. Marine Mammal Science, 27(2):366-381.

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

5. Range

5.1 Surface area (km²)	531679	
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)	531679
	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	2613
	c) Maximum	23664
	d) Best single value	7864
6.3 Type of estimate	95% confidence interval	
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	2007-2018	
6.8 Short-term trend Direction	Unknown (x)	

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

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 d) Method	x
6.16 Change and reason for change in population size	No change The change is mainly due to:	
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).This is the first reliable abundance estimate following a dedicated survey covering UK waters for this species.	

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	
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
Sports, tourism and leisure activities (F07)	M

Industrial or commercial activities and structures generating noise, light, heat or other forms of pollution (F25)	M
Bycatch and incidental killing (due to fishing and hunting activities) (G12)	M
Mixed source marine water pollution (marine and coastal) (J02)	M

Threat	Ranking
Wind, wave and tidal power, including infrastructure (D01)	M
Sports, tourism and leisure activities (F07)	M
Industrial or commercial activities and structures generating noise, light, heat or other forms of pollution (F25)	M
Bycatch and incidental killing (due to fishing and hunting activities) (G12)	M
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)	H

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

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

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

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 Risso's 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)
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 No change The change is mainly due to: 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.

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

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	

13. Complementary information

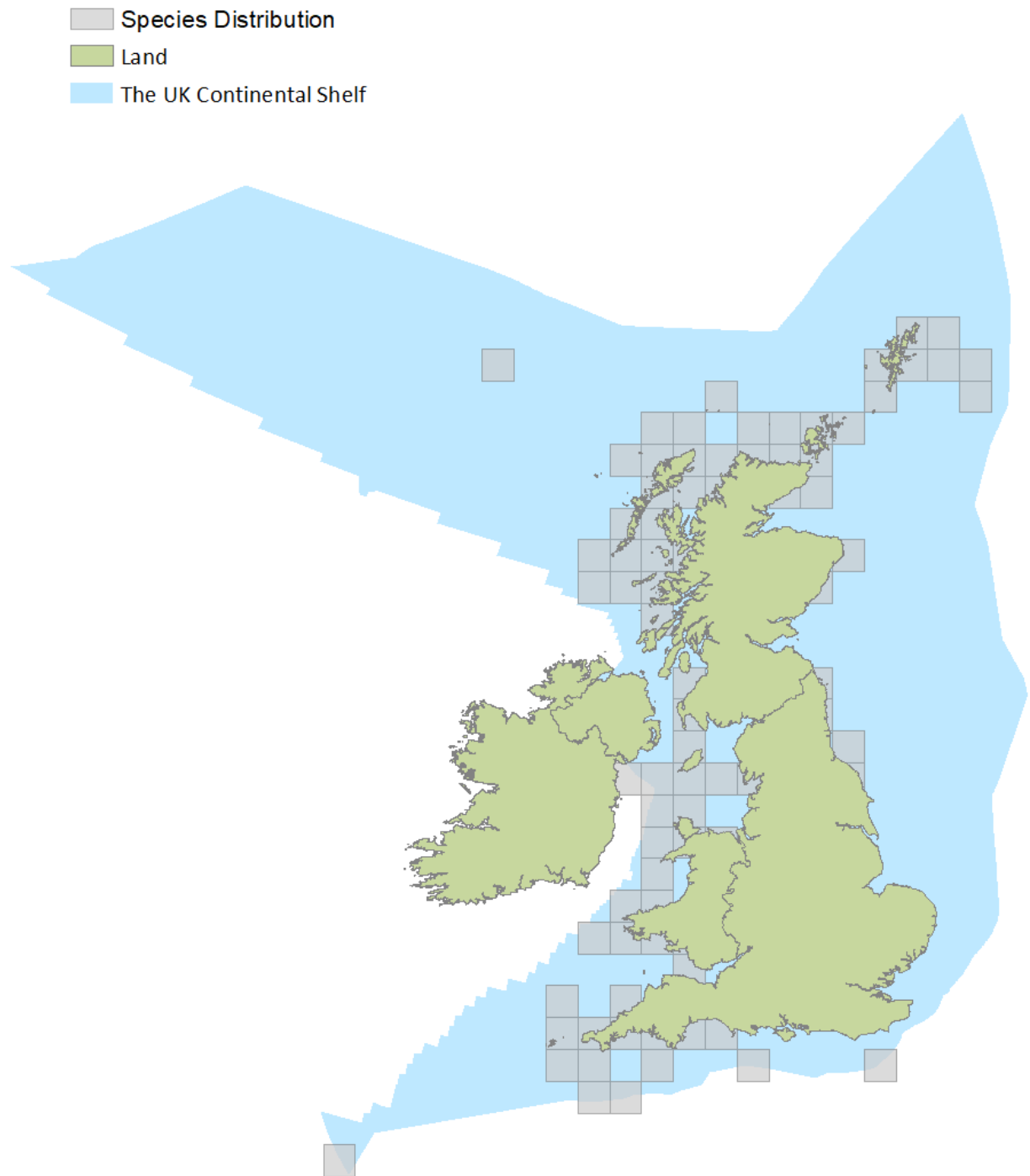|	
13.1 Justification of % thresholds for trends	
13.2 Trans-boundary assessment	
13.3 Other relevant Information	

Distribution Map

Figure 1: UK distribution map for S2030 - Risso's dolphin (*Grampus griseus*).

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.
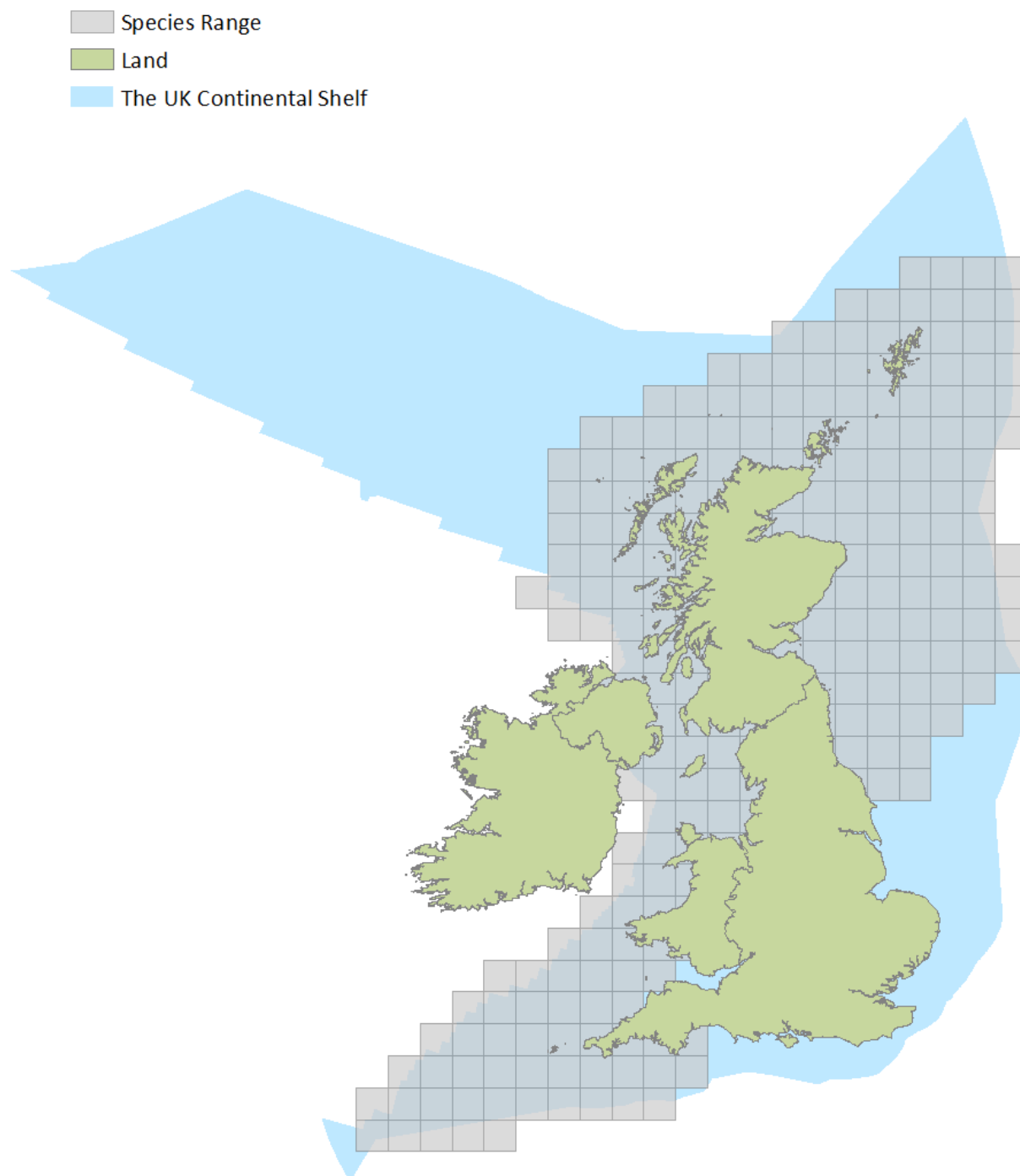
Range Map

Figure 2: UK range map for S2030 - Risso's dolphin (*Grampus griseus*).

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 Risso's dolphin (*Grampus griseus*) 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: Grampus griseus (2030)

Field label	Note
2.1 Sensitive species	This refers to sensitivities around publishing distribution data.
2.3 Distribution map	The distribution map is based on actual sightings of Risso's dolphin (Annex A), covering the UK Exclusive Economic Zone (EEZ) and UK Continental Shelf area (hereafter referred to as 'UK waters') between 2013 and 2018. This collates sightings data from the SCANS-III, National Biodiversity Network (NBN), SeaWatch Foundation, MARINElife and ORCA datasets and includes both effort related sightings and confirmed opportunistic sightings collected from land, ship and aerial platforms during this period. In the UK, Risso's dolphin are primarily a shelf and shelf-edge species (Reid et al. 2003), though they are sighted offshore, and may migrate seasonally between these regions. Risso's dolphin are most commonly observed along the Scottish west coast, particularly around the Outer Hebrides, and around the Isle of Man and the north-east coast of Wales but are rarely observed in the southern North Sea and the English Channel (Baines and Evans, 2012). The distribution map illustrated is a good representation of Risso's dolphin distribution in UK waters. However, lower survey effort combined with low densities of Risso's in the offshore regions mean that these areas are not represented on the map. Risso's dolphin have been observed in shelf edge/ offshore areas and it is likely that the species can be found anywhere within their range (Annex B).
2.5 Additional maps	Predicted core range for Risso's dolphin in UK waters (Annex B). Although the species may occasionally occur outside of this area in the UK, the range presented illustrates where the species occurs most commonly and consistently. There is 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 Risso's 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: Grampus griseus (2030) Region code: MATL

Field label	Note
5.3 Short term trend; Direction	Range for the current report (531,679 km2) is equal to the range presented in the 3rd reporting round (531,812 km2).
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 abundance have been pro-rated by area 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 the 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.
6.10 Short term trend; Method used	This is the first time that an assessment of Risso's dolphin abundance from a single survey with coverage of the UK EEZ has been made (SCANS-III; Hammond et al. 2017). The previous reporting round (2013) did give a value for Risso's dolphin abundance but there is little confidence in the estimate. The estimate was derived from the SCANS-II (2005) survey but the match between the model prediction and that based on the raw survey data was very poor and it is not comparable with the estimate derived from the SCANS-III (2016). Therefore, assessment of trend is not achievable.
6.15 Favourable reference population	This is the first reliable abundance estimate following a dedicated survey covering UK waters for this species. As there is lack of reliable trend information to support this value, it is not possible to state whether this estimate represents a favourable reference population. The FRP is therefore currently Unknown.
7.1 Sufficiency of area and quality of occupied habitat	As data relating to habitat quality is limited for this species, the assessment of this parameter is based on the conclusions for range and population as a proxy for habitat. Although Risso's dolphin range is considered stable, with only one reliable UK abundance estimate it is not possible to explore trends and the conclusion for the population parameter 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 Risso's dolphin (RD): Pressure ranking for Risso's dolphin is mainly based on expert judgement and data from post mortem of stranded animals, which indicates sources of mortality for the species. 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. Between 2000-2017, 157 Risso's dolphins were reported as stranded in the UK, of which 36 were examined at post mortem by the UK Cetacean Strandings Investigation Programme (CSIP). The main causes of death were encephalitis (19%), live stranding (17%) starvation (14%) and gastritis and/or enteritis (11%) (UK CSIP annual reports (Deaville 2011:2017) http://ukstrandings.org/csip-reports).
8.1 Characterisation of pressures/ threats	D01 Wind, wave and tidal power, including infrastructure: Application of pressure: Used where there is evidence that this pressure alone has an impact rated Medium or above. There is limited evidence for the current effects of this pressure on Risso's dolphin. There are considerable legal and societal obligations to meet clean energy requirements which will result in an increase in the development of the renewable energy industry such as tidal and wave power, with the potential to increase risk of collision (Malinka et al., 2018) and displacement from key habitat. This is regionally significant for Risso's dolphin, resulting in a Medium grading.
8.1 Characterisation of pressures/ threats	F07 Sports, tourism and leisure activities: Application of pressure: Used to identify risk of wildlife watching activities. The impact of this pressure is indirect, and recovery from disturbance is unknown. Exposure is limited both spatially and temporally, although it may be regionally significant when occurring in areas known to be favoured by the species. Boat presence is associated with a short-term reduction in resting behaviour in Risso's dolphins. Disturbance from tourism activities impacts distribution and communication between the species and increases with frequency and number of vessels present (Visser et al., 2011). However, this pressure is mitigated to some degree by codes of conduct regarding interactions. However, regional risk maintains a Medium grading.

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. There is no current evidence for the effects of climate change on related species regarding Risso's dolphin. However, the species has a specific diet with a preference for cephalopods (Blanco et al., 2006; Bearzi et al., 2011) which may reduce capacity to adapt to changes in prey availability 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 pollution in the marine environment (Middel and Verones, 2017). Noise pollution from shipping vessels is of concern to the species, as a diverse range of vessels produce substantial noise across a broad spectrum of frequencies (0.025-160kHz), including high frequencies where toothed whale hearing is most sensitive. Vessel noise should be considered over a broad frequency range, and not just low frequency bands, when assessing noise on effects on toothed whales (Hermannsen et al, 2014). Although alone this pressure is not graded Medium or High, the cumulative impact of this and other sources of noise may be greater when combined, which is accounted for here.
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. PCBs are recognised as one of the most significant pollutants impacting UK cetaceans. This pressure has an indirect effect on mortality, mediated through the diet (bioaccumulation), causing reduced resilience to disease and lower fecundity through increased foetal mortality. The influence is long-term and intergenerational, with the pressure ubiquitous across the species range (Jepson et al, 2016). Evidence of pollutant burdens in Risso's dolphins exists for various populations globally (Storelli et al., 1999, Kim et al., 1996, Marsili & Focardi, 1997) and recent analysis in the UK indicates the issue is persisting (Jepson et al., 2016). Evidence as to the impacts on this species are limited.
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. Two cases of bycatch have been established in this species from the 36 post mortem examinations (~ 5%) carried out between 2000 and 2017 through the UK Cetacean Strandings Investigation Programme (Deaville 2011:2017), and there is one record of a Risso's bycaught in a set gillnet on the Celtic Shelf from the UK Bycatch Monitoring Programme. This pressure was ranked Medium as it is recognised as potentially having an important direct and immediate influence on individuals, but with relatively low exposure.
9.5 List of main conservation measures	CJ01 Reduce impact of mixed source pollution: The impact of chemical pollution on Risso's 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 as well effectiveness of 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: 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 therefore the range assessment 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	Although Risso's dolphin have previously been assessed as Unknown, and so there has been no change in conservation status since the last reporting round, the approach to dealing with limited data has been revised since the UKs 3rd reporting round (2013). 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.