

**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:

S1223 - Leatherback turtle (*Dermochelys coriacea*)

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	1223
1.3 Species scientific name	<i>Dermochelys coriacea</i>
1.4 Alternative species scientific name	
1.5 Common name (in national language)	Leatherback turtle

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	Insufficient or no data available
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?	<table> <tr> <td>a) regulations regarding access to property</td><td>No</td></tr> <tr> <td>b) temporary or local prohibition of the taking of specimens in the wild and exploitation</td><td>No</td></tr> <tr> <td>c) regulation of the periods and/or methods of taking specimens</td><td>No</td></tr> <tr> <td>d) application of hunting and fishing rules which take account of the conservation of such populations</td><td>No</td></tr> <tr> <td>e) establishment of a system of licences for taking specimens or of quotas</td><td>No</td></tr> <tr> <td>f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens</td><td>No</td></tr> <tr> <td>g) breeding in captivity of animal species as well as artificial propagation of plant species</td><td>No</td></tr> <tr> <td>h) other measures</td><td>No</td></tr> </table>	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
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

Bailey, H., Fossette, S., Bograd, S.J., Shillinger, G.L., Swithenbank, A.M., Georges, J-Y, et al. (2012). Movement Patterns for a Critically Endangered Species, the Leatherback Turtle (*Dermochelys coriacea*), Linked to Foraging Success and Population Status. PLoS ONE 7(5): e36401.
<https://doi.org/10.1371/journal.pone.0036401>

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

Du Preez, M., Nel, R., & Bouwan, H. (2018). First report of metallic elements in loggerhead and leatherback turtle eggs from the Indian Ocean. Chemosphere, 197:716-726. <https://doi.org/10.1016/j.chemosphere.2018.01.106>.

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>

Guirlet, E., Das, K., Thome, J-P., & Marc, G. (2010). Chemosphere Maternal transfer of chlorinated contaminants in the leatherback turtles, *Dermochelys coriacea*, nesting in French Guiana. Chemosphere, 79(7):720-726. doi: 10.1016/j.chemosphere.2010.02.047.

Hawkes LA, Broderick AC, Godfrey MH, Godley BJ (2009) Climate change and marine turtles. Endang Species Res 7:137-

Hays, G. C., (2017). Ocean currents and marine life, Current Biology, Volume 27, Issue 11, 2017, Pages R470-R473, ISSN 0960-9822,

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

<https://doi.org/10.1016/j.cub.2017.01.044>.

Houghton, J. R., Doyle, T. K., Wilson, M. W., Davenport, J and Hays, G. C. (2006). Jellyfish aggregations and leatherback turtle foraging patterns in a temperate coastal environment. *Ecology*, 87(8), 2006, pp. 1967-1972. 2006 by the Ecological Society of America.

<https://pdfs.semanticscholar.org/0e42/0f4e3200c19f1e62949282b967e8a232e0b0.pdf>

Hu, Z., Hu, H., & Huang, Y. (2018). Association between night time artificial light pollution and sea turtle nest density along Florida coast: A geospatial study using VIIRS remote sensing data. *Environmental Pollution*, 239:30-42.

James, M. C and Mrosovsky, N (2004). Body temperatures of leatherback turtles (*Dermochelys coriacea*) in temperate waters off Nova Scotia, Canada. *Canadian Journal of Zoology*, 2004, 82:1302-1306, <https://doi.org/10.1139/z04-110>

Lewison, R., Freeman, S.A & Crowder, L. B. (2004). Quantifying the effects of fisheries on threatened species: the impact of pelagic longlines on loggerhead and leatherback sea turtles. *Ecology Letters*, 7:221-231

McMahon C.R., Hays G.C. (2006). Thermal niche, large-scale movements and implications of climate change for a critically endangered marine vertebrate. *Global Change Biology*, 12, 1330-1338.

Mrosovsky, N., Ryan, G. D., & James, M. C. (2009). Leatherback turtles 202f: The menace of plastic. *Marine Pollution Bulletin*, 58(2): 287-289. doi: 10.1016/j.marpolbul.2008.10.018.

Schuyler, Q. Hardesty, B.D., Wilcox, C., & Townsend, K. (2013). Global Analysis of Anthropogenic Debris Ingestion by Sea Turtles. 28(1):129-139. doi: 10.1111/cobi.12126.

Pierpoint C. & Penrose R. (2002). 'TURTLE' A database of Marine Turtle Records for the United Kingdom and Eire. (Version 1.3 2002): Introduction, data summary and user notes. (Contractor: Marine Environmental Monitoring, Llechryd.

Poloczanska, E. S., Limpus, C. J. & Hays, G. C. (2009). Chapter 2 Vulnerability of Marine Turtles to Climate Change. *Advances in Marine Biology*, 56:141-211. doi: 10.1016/S0065-2881(09)56002-6.

Speer, R.M., Wise, C.F., Young, J.L., Aboueissa, A-M., Martin Bras, M., Barandiaran, M., Bermudez, E., Marquez-D'Acunti, L., Wise, J.P. Sr. (2018). The cytotoxicity and genotoxicity of particulate and soluble hexavalent chromium in leatherback sea turtle lung cells. *Aquatic Toxicology*, 198:149-157.

Spotila J.R., Dunham A.E., Leslie A.J., Steyermark.A.C., Plotkin.P.T, & Paladino, F.V. (1996). Worldwide population decline of *Dermochelys coriacea*: are leatherback turtles going extinct? *Chelonian Conservation and Biology*, 2:209-222

Stewart, K. R., Keller, J.M., Templeton, R., Kucklick, J.R., & Johnson, C. (2011). Monitoring persistent organic pollutants in leatherback turtles (*Dermochelys coriacea*) confirms maternal transfer. *Marine Pollution Bulletin*. 62(7):1396-1409. doi: 10.1016/j.marpolbul.2011.04.042

Wallace, B. P., DiMatteo, A.D., Bolten, A.B., Chaloupka, M.Y., Hutchinson, B.J., Abreu-Grobois, F.A., et al. (2011). Global Conservation Priorities for Marine Turtles. 6(9):e24510. doi: 10.1371/journal.pone.002451

Witt M. J., Broderick A. C., Johns D.J., Martin C., Penrose R., Hoogmoed M.S., Godley B.J. (2007). Prey landscapes help identify potential foraging habitats for leatherback turtles in the northeast Atlantic. *Mar. Ecol. Progr. Ser.* 337: 231-243.

5. Range

5.1 Surface area (km²)

335391

5.2 Short-term trend Period

2007-2018

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

5.3 Short-term trend Direction	Unknown (x)
5.4 Short-term trend Magnitude	a) Minimum b) Maximum
5.5 Short-term trend Method used	Based mainly on expert opinion with very limited data
5.6 Long-term trend Period	
5.7 Long-term trend Direction	
5.8 Long-term trend Magnitude	a) Minimum b) Maximum
5.9 Long-term trend Method used	
5.10 Favourable reference range	a) Area (km ²) 335391 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 3rd reporting round (2013) (excluding analytic differences). However, range is considered unknown due to the quantity and quality of available data on which to base an assessment.

6. Population

6.1 Year or period	
6.2 Population size (in reporting unit)	a) Unit number of individuals (i) b) Minimum c) Maximum d) Best single value
6.3 Type of estimate	
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	Insufficient or no data available
6.7 Short-term trend Period	2007-2018
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

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

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

No change
The change is mainly due to:

6.17 Additional information

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

Insufficient or no data available

7.3 Short-term trend Period

2007-2018

7.4 Short-term trend Direction

Unknown (x)

7.5 Short-term trend Method used

Insufficient or no data available

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
Mixed source marine water pollution (marine and coastal) (J02)	M
Threats and pressures from outside the Member State (Xo)	M
Threat	Ranking
Mixed source marine water pollution (marine and coastal) (J02)	M

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

Decline or extinction of related species (e.g. food source / prey, predator / parasite, symbiote, etc.) due to climate change (N07) M

Threats and pressures from outside the Member State (Xo) 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

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 Government funds a national strandings scheme, ongoing since 1990, which aims to: collate, analyse and report data for all cetacean, seal, turtle and shark strandings around the coast of the UK: determine the causes of death in stranded animals, including bycatch and physical trauma and; undertake surveillance on the incidence of disease in stranded animals in order to identify any substantial new threats to their conservation status. These considerations for this species most closely equate to the following two measures in the EU conservation measures list: Control/eradication of illegal killing, fishing and harvesting (CG04) Reduce bycatch and incidental killing of non-target species (CG05).

10. Future prospects

10.1 Future prospects of parameters

a) Range Unknown

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 leatherback turtle, the future trend and consequently the future prospects for all parameters are assessed as Unknown; this is due to there being insufficient data to establish current trends for these parameters.

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

11. Conclusions

11.1. Range	Unknown (XX)
11.2. Population	Unknown (XX)
11.3. Habitat for the species	Unknown (XX)
11.4. Future prospects	Unknown (XX)
11.5 Overall assessment of Conservation Status	Unknown (XX)
11.6 Overall trend in Conservation Status	Unknown (x)
11.7 Change and reasons for change in conservation status and conservation status trend	<p>a) Overall assessment of conservation status</p> <p>No change</p> <p>The change is mainly due to:</p> <p>b) Overall trend in conservation status</p> <p>No change</p> <p>The change is mainly due to:</p>
11.8 Additional information	<p>Conclusion on Range reached because: (i) the short-term trend direction in Range surface area is unknown; and (ii) the Favourable Reference Range is unknown.</p> <p>Conclusion on Population reached because: (i) the FRP is unknown; and (ii) the short-term trend direction in Population size is unknown; and (iii) the current Population size is unknown.</p> <p>Conclusion on Habitat for the species reached because: (i) the area of habitat is unknown and (ii) the habitat quality is unknown for the long-term survival of the species; and (iii) the short-term trend in area and sufficiency of habitat is unknown.</p> <p>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.</p> <p>Overall assessment of Conservation Status is Unknown because all of the conclusions are Unknown.</p> <p>Overall trend in Conservation Status is based on the combination of the short-term trends for Range -unknown, Population - unknown, and Habitat for the species - unknown.</p>

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)	<p>a) Unit</p> <p>b) Minimum</p> <p>c) Maximum</p> <p>d) Best single value</p>
12.2 Type of estimate	
12.3 Population size inside the network Method used	

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

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

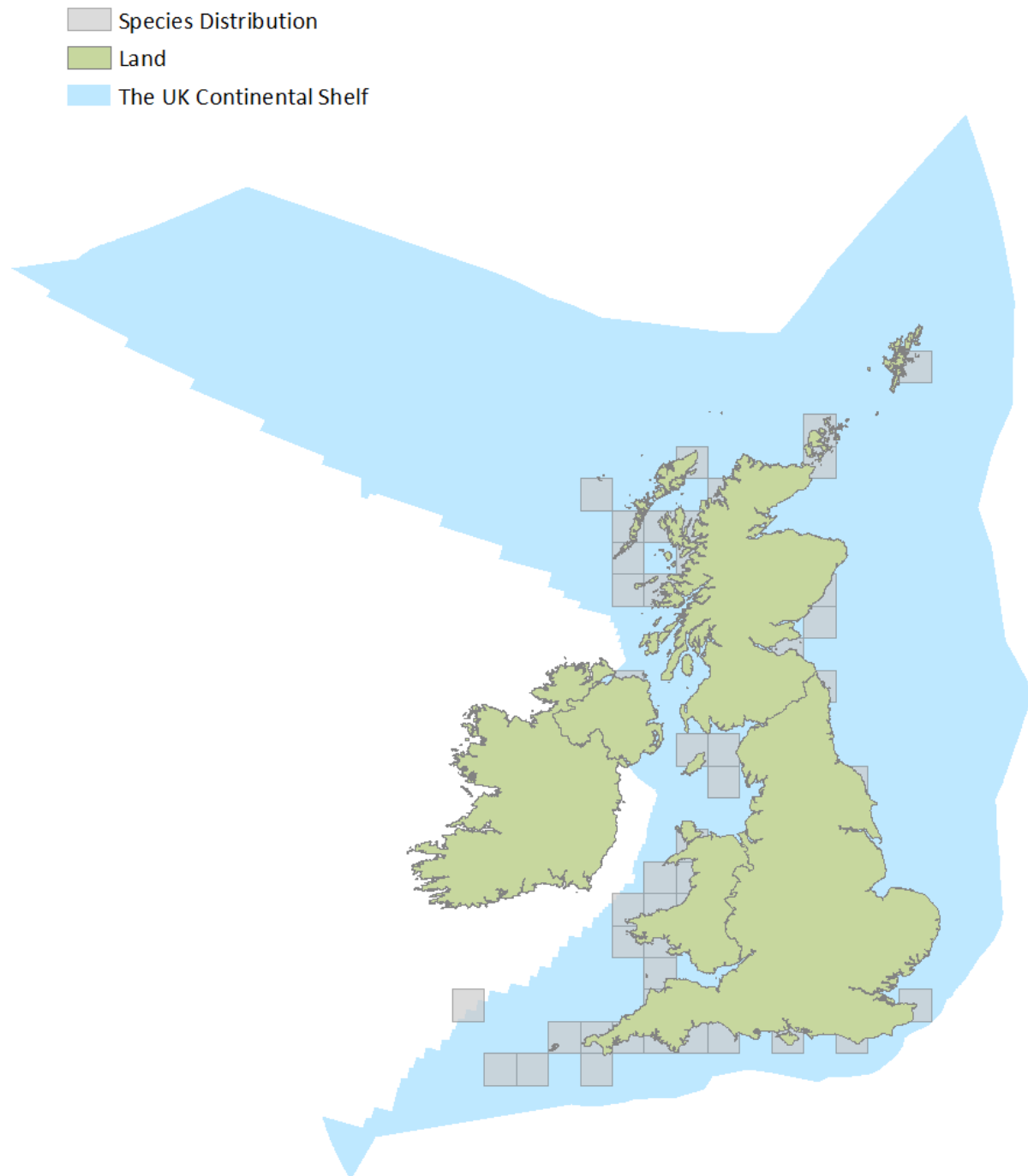


Figure 1: UK distribution map for S1223 - Leatherback turtle (*Dermochelys coriacea*).

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

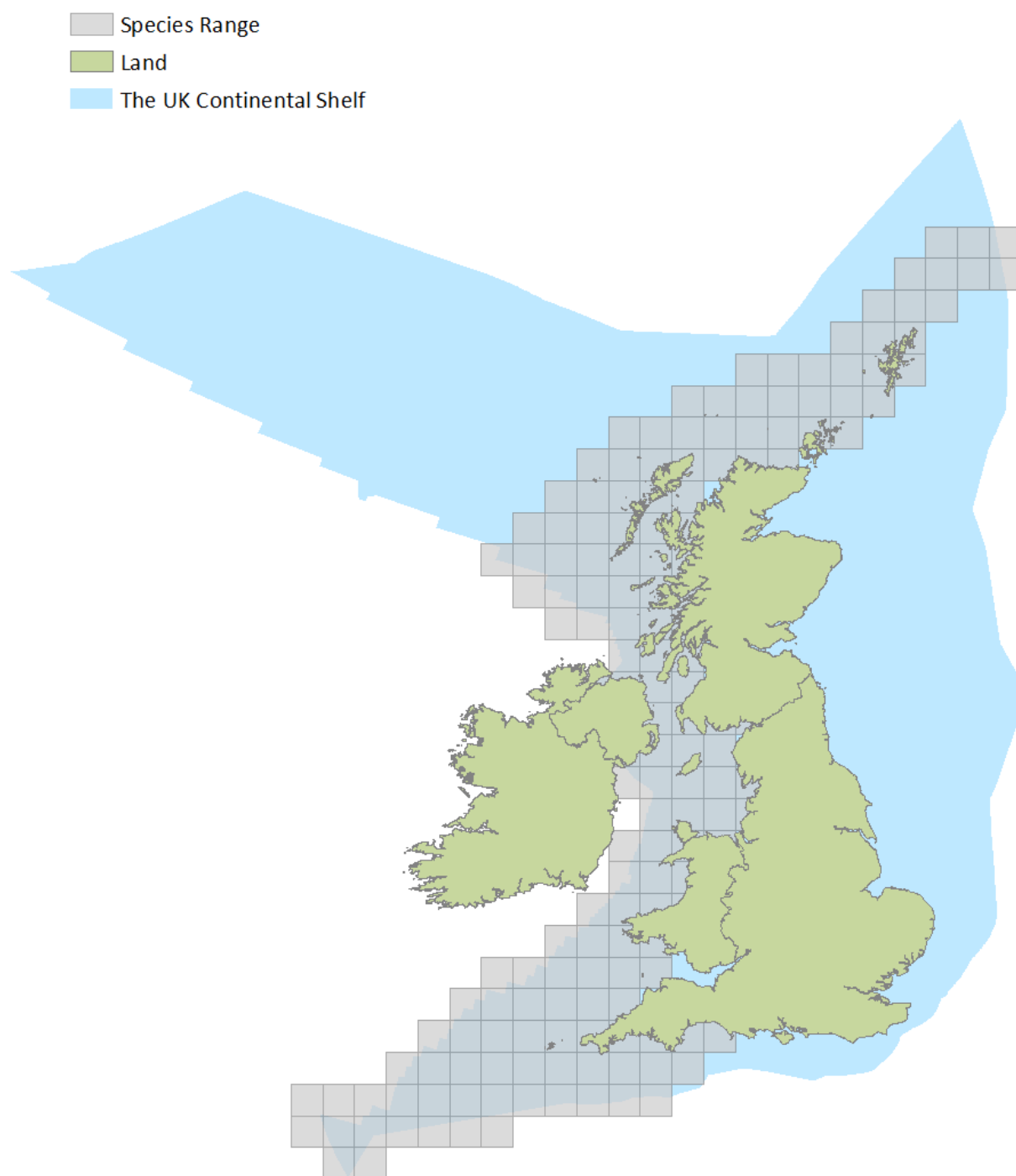


Figure 2: UK range map for S1223 - Leatherback turtle (*Dermochelys coriacea*).

This map illustrates the predicted range for Leatherback turtle (*Dermochelys coriacea*) in UK waters. A 50x50km grid was used and the projection is ETRS LAEA 5210. There is no evidence to suggest the distribution and range have altered significantly from the 3rd reporting round (2007-2012), however, given the previous assessment of unknown for range trend, and the poor quality of the limited data, we therefore conclude that range is unknown.

Explanatory Notes

Species name: *Dermochelys coriacea* (1223)

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 based on actual sightings of leatherback turtles, covering the UK Exclusive Economic Zone (EEZ) and UK Continental Shelf area (hereafter referred to as 'UK waters') between 2013 and 2018. Due to their relatively low abundance in UK waters, leatherback turtles are very rarely sighted in UK waters, resulting in an under-representation of the species in the sightings data. It is likely that the species can be found anywhere within their range (Annex B). However, it does illustrate the areas of higher concentrations of reports from both at-sea observations and strandings, which are predominantly along the west of the UK.
2.4 Distribution map; Method used	The distribution map (see Annex A) shows the actual sightings of leatherback turtles in UK waters between 2013 and 2018. Sightings data were downloaded from the TURTLE database. As they are rarely observed, the distribution obtained covers less area than would be expected, based on expert judgement. It is therefore concluded that the resulting map is not entirely representative of their actual distribution in UK waters and it is likely that the species can be found anywhere within their range (see range map in Annex B).
2.5 Additional maps	The core range for leatherback turtles in UK waters is in Annex B. There is no evidence to suggest the distribution and range have altered significantly from the 3rd reporting round (2013), however, given the previous assessment of unknown for range trend, and the limited data, we therefore conclude that range is unknown. Studies have suggested that the waters of the UK represent the northerly limit of routine seasonal leatherback foraging migrations from the wider Atlantic (McMahon and Hays 2006, Witt et al. 2007), supporting the west of the UK as the primary region for leatherback turtle distribution.

Species name: *Dermochelys coriacea* (1223) Region code: MATL

Field label	Note
5.3 Short term trend; Direction	There is no evidence to suggest the current favourable reference range (335,391km ²) has altered significantly from the 3rd reporting round (341,957km ²). However, given the previous assessment of unknown for range trend, and the limited data on this species in UK waters, we therefore conclude that range is Unknown.
5.5 Short term trend; Method used	To assess the short-term trend in range, the previous favourable reference range for the 2013 reporting period (2007-2013) was compared with the available distribution data from the current data collection period (2013-2018). Given the lack of good quality data available, it is not possible to assess the trend.
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	Although the range has not notably altered from the 3rd reporting round (2013) assessment, range is considered unknown due to the quantity and quality of available data, following the previous Unknown assessment. However, 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	There are no dedicated surveys for leatherback turtle in the UK due to their, largely, seasonal presence and low density.

6.2 Population size	<p>Although in the 3rd reporting round (2013) the population unit was based on presence/absence in grid squares from the distribution data, this information has limited value with regards comparability for a highly mobile species given the lack of data associated with each 50x50km grid square. The guidance requests numbers of individuals for the 4th reporting round (2019), however, due to lack of data there are no population values for leatherback turtle in UK waters.</p>
7.1 Sufficiency of area and quality of occupied habitat	<p>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. The range for this species remains unchanged since the 3rd reporting round (2013), matching the favourable reference range. However, there is no population value due to limited evidence, therefore, it is not possible to assess whether the habitat is of sufficient area and quality for the species without a better understanding of the abundance and dynamics of leatherback turtles in UK waters.</p>
8.1 Characterisation of pressures/ threats	<p>Xo Threats and pressures from outside member states: Application of pressure: Used to identify risk from nations outside of Member States. Leatherback turtles travel long distances (Bailey et al., 2012) and as a result, face a variety of pressures outside of the EU that are likely to impact populations (Spotila et al., 1996). In addition to bycatch, pollution, and climate change, leatherback turtle populations are also affected by direct take from humans (of either animals or eggs for human consumption or commercial products), and coastal developments affecting critical turtle habitats (e.g. human alteration of coastal environments due to construction, dredging, light pollution or beach modification) (Hawkes et al, 2009; Wallace et al., 2011; Hays, 2017; Hu et al., 2018, Lewison et al., 2004). For example, there is a significant negative correlation between light pollution at nesting beaches, and frequency of nests (Hu et al., 2018).</p>
8.1 Characterisation of pressures/ threats	<p>General information for leatherback turtle: Pressure ranking for leatherback turtle is mainly based on expert opinion and data from post mortem of stranded animals, which indicates sources of mortality for the species. A literature search was conducted for any other available evidence to support the assessment. Between 2000-2017, 64 leatherback turtles were reported as stranded in the UK, of which 7 were examined at post mortem by the UK Cetacean Strandings Investigation Programme (UK CSIP). The leading cause of death established was entanglement (29%), followed by bycatch, cold stunned, and physical trauma (14% each). Evidence of plastic ingestion was also found in one individual, although not established to be the cause of death (Deaville 2011:2017) https://ukstrandings.org/csip-reports.</p>
8.1 Characterisation of pressures/ threats	<p>J02 Mixed source marine water pollution (marine and coastal): Application of pressure: Used to identify risk from marine and coastal pollution. Plastic pollution in the ocean is of concern for leatherback turtles, as floating plastic could be confused for their main prey, jellyfish (Mrosovsky et al., 2009). Results of historical analysis of debris ingestion by leatherback turtles show a long-term increase in ingestion frequency (Mrosovsky et al., 2009; Schuyler et al., 2013). However, it should be noted that these studies were conducted using world-wide data on plastic ingestion, and that data specific to leatherbacks in UK waters is lacking. Evidence of plastic ingestion was found in the one leatherback turtle examined post-mortem by the UK CSIP in 2016 (UK CSIP annual reports), however this was not the cause of death. Evidence of organochlorine contaminants (OCs) and persistent organic populations (POPs) including PCBs and PBDEs has been found in nesting leatherback turtles in the North Atlantic, including evidence of maternal transfer of pollutants to eggs (Guirlet et al., 2010; Stewart et al., 2011). This is also being recorded in other global populations such as the Indian Ocean (Du Preez et al, 2018). There are reports of other marine pollutants also accumulating in this species, which are known to be carcinogenic to humans, but the impact on marine species is not yet established (Speer et al, 2018). However, the extent to which these are present in animals visiting UK waters, and exactly how contaminants affect leatherback turtles is largely unknown.</p>

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 of decline in related species from climate change. There is limited evidence for current effects of climate change on related species and the subsequent impact on leatherback turtles. The diet of leatherback turtles consists predominantly of gelatinous zooplankton: cnidarians, ctenophores, molluscs and tunicates (salps and pyrosomes) that are infrequently found in high densities (Bailey et al., 2012). Availability of these is thought to drive the movements of these animals (Houghton et al, 2006) and changes in climate affecting availability of these aggregations of food will likely impact distribution of leatherback turtles, although there is no evidence to suggest current impact. It has been suggested that the migratory nature of marine turtles and their ability to move considerable distances in short period of times should increase their resilience to changes in prey abundance due to climate change (Poloczanska, Limpus and Hays, 2009). Leatherbacks are also able to regulate their temperature through various mechanisms, which may support the ability to widen their foraging range and reduce impact of reduction on food availability in their current range (James and Mrosovsky, 2004). There are other potential impacts of climate change on the species, such as changing currents impacting migration (Hays, 2017); influence on sex ratio and habitat loss through sea level rise (Hawkes et al, 2009).
9.5 List of main conservation measures	CG05 Reduce bycatch and incidental killing of non-target species: 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.
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.
10.1 Future prospects of parameters	10.1a Range: 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 impossible to predict its future prospects. 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 impossible to predict its future prospects. 10.1c Habitat of the species: 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 impossible to predict its future prospects.
11.1 Range	The conclusion for range is Unknown because the overall assessment of this parameter is Unknown.
11.2 Population	The conclusion for the current population assessment is Unknown due to there being insufficient reliable information to assess the status of this parameter.
11.3 Habitat for the species	Insufficient information on population and range. 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 (range, population and habitat) therefore future prospects are Unknown given a lack of evidence on which to base an assessment.

11.5 Overall assessment of Conservation Status	The assessment results for range, population and habitat are Unknown, therefore there is no evidence on which to base an assessment of conservation status.
11.7 Change and reasons for change in conservation status and conservation status trend	Leatherback turtles have previously been assessed as Unknown and so there has been no change in conservation status since the last reporting round.