

Agenda Item 2

Review of New Information on Threats and  
Other Issues Relevant to Small Cetaceans

Document NR.7

**2021 Annual National Report:  
United Kingdom**

**Action Requested**

- Take note
- Comment

Submitted by

United Kingdom





## ASCOBANS

# 2021 ASCOBANS National Report

The deadline for the submission of National Reports is **31 March 2022**.

As outlined in ASCOBANS Resolution 8.1 (Rev.MOP9) National Reporting, this form will cover the year 2021 (Year 2 of the cycle), and the following topics included in the Annex to the Resolution, in addition to the standard Sections I (General Information) and VII (Other Matters):

Bycatch (Section II A1)

Resource Depletion (Section II A2)

Marine Debris (Section II C9)

Surveys and Research (Section III A: Biological Information, B: Monitoring Programmes, C: Other Research)

Use of Strandings Records (Section IV A: Stranding Network and Strandings)

The National Reports submitted will inform discussions at the 27th Meeting of the ASCOBANS Advisory Committee in late 2022.

- All questions apply to the reporting period of 1 January - 31 December 2021.

- Region in the tables refers to the sub-regions as defined by the HELCOM and OSPAR, and Areas refers to the sub-areas as defined by ICES. An overview and maps of these can be found in **Annex A**. Species can be chosen from the list provided, based on ASCOBANS species list, see **Annex B**.

- Throughout the form, please include relevant web links where applicable.

Where possible, National Coordinators should consult with, or delegate to, experts for particular topics so as to ease the reporting burden. The Secretariat has provided a list of potential country contacts as a starting point. Once the baseline information is in place, it should become easier to update in the future.

For any questions, please do not hesitate to contact the Secretariat: [ascobans.secretariat@ascobans.org](mailto:ascobans.secretariat@ascobans.org).

## High-level Summary of Key Messages

**In your country, for 2021 (Year 2), what does this report reveal about:**

**The most successful aspects of implementation of the Agreement?(List up to five items)**

- >>> (i) The UK continues to implement several dedicated bycatch monitoring schemes and mitigation methods to keep bycatch stable or decreasing for the reported species.
- (ii) The UK has several marine debris monitoring programmes helping to gather more information on the impact on cetaceans in UK waters.
- (iii) The continuation of cetacean stranding monitoring programmes provide invaluable information on the health status of cetaceans in UK waters.

**The greatest challenges in implementing the Agreement? (List up to five items)**

- >>> (i) For this reporting period, Covid-19 has had significant impacts, both in terms of carrying out planned, and funding new projects.

**The main priorities for future implementation of the Agreement? (List up to five items)**

- >>> (i) Further research is needed into resource depletion and the impact this has on cetaceans.
- (ii) Continued focus on improving the existing bycatch monitoring and mitigation.
- (iii) Exploration of scale of impacts related to marine debris on cetacean species and options for mitigation measures for marine debris.

# I. General Information

## A. Country Information

### Name of Party / Non-Party Range State:

>>> United Kingdom

### Details of the Report Compiler

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Does the Report Compiler act as ASCOBANS National Coordinator (i.e. focal point)?

No

### Details of contributor(s)

Please provide the following details per contributor:

Topic(s) contributed to, Name, Function, Organization, Postal Address, Telephone, and Email.

>>> Topic(s) contributed to: Bycatch

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## II. Habitat Conservation and Management (threats and pressures on cetaceans)

### A. Fisheries-related Threats

#### 1. Bycatch

**AIM:** to illustrate progress on understanding, monitoring and mitigating bycatch of small cetaceans.

Relevant Resolutions: 9.2, 8.5 (Rev.MOP9), 8.4 (Rev.MOP9), 8.3, 7.3, 7.1, 6.1, 5.8, 5.7, 5.5, 3.3

Bycatch, the entanglement of an animal in fishing gear, is identified as a major cause of mortality in small cetaceans. Every effort should be made to reduce bycatch towards zero as quickly as possible. Parties to ASCOBANS have agreed on a number of resolutions that highlight the importance of mitigating bycatch of small cetaceans in the Agreement Area, as available data indicates that levels of bycatch pose a considerable threat to their conservation status. Parties have agreed that modifications of fishing gear and relevant practices shall be applied in order to reduce negative impacts where data indicates unacceptable interaction. The Agreement Area requires improved monitoring, collation of data, and consideration of appropriate mitigation measures, while also taking into account similar work in other areas. To better understand the extent of the impact of bycatch on small cetaceans, monitoring and mitigation measures in place, and ongoing work in the Agreement Area, countries are requested to provide relevant information.

Note: This section includes bycatch in recreational fisheries.

##### 1.1. How is bycatch assessed/monitored in your country?

For the reporting period, please identify whether the following methods were used and the percentage (by monitoring method, of total bycaught animals, by gear type if applicable):

Dedicated observer schemes

Fisheries observes

Remote Electronic Monitoring

Self-reporting by fishermen

Pathological investigation

Assessment at stranding site

>>> Dedicated observer schemes: 100%, nets

Fisheries observers: 0%

Remote Electronic Monitoring: 0%

Self-reporting by fishermen: 0%

- All licenced vessels must report bycatch events within 48 hours of the end of the fishing trip via the MMO reporting form (<https://www.gov.uk/government/publications/marine-mammal-bycatch-reporting-requirements>). A self-reporting app has also been developed under the CCUK project for fishermen to use to report bycatch of any sensitive taxa.

Pathological investigation: 15.7% - n=16 (out of 102 UK necropsies - all small cetacean species)

Assessment at stranding site: 19.7% - n=23 (out of 117 non-necropsied and BEEP assessed strandings in Cornwall) \*

Comments:

>>> • Bycatch monitoring is carried out by dedicated observers, catch sampling observers, validated electronic monitoring (EM) and fisher self-reporting.

- Dedicated observers and validated EM efforts are focused in areas/gears with known or perceived sensitive species interactions.
- Catch sampling observer effort are focused mainly in fisheries associated with commercial species discards but sampling protocols now include requirements for observers to record and report sensitive species bycatch.
- Fisher self-reporting efforts are carried out via an app (data contained in this report only from January-July 2021 - as later data not yet processed) and through mandatory official logbook reporting.
- Additional and more detailed data on UK strandings and necropsies is available in the relevant annual reports (see Section IV, 1.10)
- Scottish Marine Animals Stranding Scheme (SMASS) volunteers also assess stranded carcasses in Scotland for lesions potentially related to bycatch

\*Data displayed on 'Assessment at stranding site' is derived from data collected by Cornwall Wildlife Trust Marine Strandings Network (CWTMSN) volunteers in Cornwall, England under their Bycatch Evidence Evaluation Protocol (BEEP). Further detail is available in the relevant CWTMSN annual report (Section IV, 1.10). Further detail on BEEP methodology also available on 'Crosby, A. and Hawtrey-Collier, A. (2021) CWTMSN Annual report 2020, pp. 11 and 39' <https://www.cornwallwildlifetrust.org.uk/sites/default/files/2021-12/2020%20MSN%20Summary%20Report%20V2-min.pdf>

##### 1.2. Which species of small cetaceans were recorded as bycatch by commercial fishing in the reporting period?

Please provide details in **this table** - download and then attach it using the blue 'link' button below.

Hold 'Ctrl' to select multiple options.

- CD - Short-beaked Common Dolphin
- HP - Harbour Porpoise
- KW - Killer Whale
- Other

>>> Comments: For "overall sampling effort", the full effort across all monitoring methods and areas is provided, not just sampling effort for the specific metiers with positive bycatch.

SMASS diagnosed the killer whale as an incidence of 'Entanglement'. Definition for this cause of death given in UK annual reports below;

- Entanglement- Denotes evidence of entanglement in rope (creel etc.) or discarded fishing gear/marine litter

You have attached the following documents to this answer.

[Sec-II\\_A\\_1.2.xlsx](#) - United Kingdom Section II A 1.2

### **1.3. Which species of small cetaceans were recorded as bycatch by recreational fishing in the reporting period?**

Please provide details in **this table** - download and then attach it using the blue 'link' button below

Hold 'Ctrl' to select multiple options.

- CD - Short-beaked Common Dolphin

You have attached the following documents to this answer.

[Sec-II\\_A\\_1.3.xlsx](#) - United Kingdom Section II A 1.3

### **1.4. Has there been any notable incidents/issues related to bycatch during the reporting period in your country?**

- No

### **1.5. Are there are mitigation measures in place?**

If you select 'Yes', please provide details in **this table** - download and then attach it using the blue 'link' button below.

- Yes

The following measures are in place:

You have attached the following documents to this answer.

[Sec-II\\_A\\_1.5\\_0.xlsx](#) - United Kingdom Section II A 1.5

### **1.6. Have there been changes in fishing effort (for fisheries known to have an impact) in the reporting period?**

- Yes

Please provide details:

>>> Netting effort appears to have decreased in recent years (Kingston et al, 2021). Impacts on fisheries due to the Covid-19 pandemic may have occurred during 2021 but are not known yet as 2021 effort data not stable until later in the year and will not be subjected to full analysis until after that.

### **1.7. Relevant new research/work/collaboration on bycatch in your country.**

List initiatives/projects (incl. PhD, MSc); publications (reports, theses, papers in journals, books) from any study; web links to other relevant information.

>>> New work

- Bycatch Monitoring Programme: the main source of broadscale bycatch data collection.
- Catch sampling programme protocols are improving with regard to bycatch recording and reporting.
- Marine Management Organisation: implemented a mandatory marine mammal bycatch reporting requirement in response to the US Marine Mammal Protection Act.

• Clean Catch UK:

- includes 8 inshore netting vessels self-reporting their cetacean bycatch, using a new wildlife bycatch reporting app a proportion of which are validated by REM.

- is undertaking a spatially restricted mitigation study, trialing 2 types of pingers and 1 type of LED.

- has developed a novel mitigation device, a Passive Acoustic Reflector. At sea trials by 12 inshore netting vessels will begin in the Summer of 2022

- The Hauling Up Solutions 2 workshop in March 2022 explored the role of gear modification and alternative

gears in reducing, and where possible, eliminating cetacean bycatch. The event brought together stakeholders from industry, policy, science, conservation, seafood supply, engineering and gear design to develop clear recommendations for realistic and practical options, which will be published in the Summer 2022.

- Insight360, is a new R&D consortium, with a primary focus on the catching sector, with the ambition to produce an affordable and scalable cetacean bycatch REM solution, using on-deck voice recognition technology and advanced Artificial Intelligence (AI) to advance current EM solutions to the next level.

- Funding granted from UK Government (Defra) for a scoping study by the UK strandings programmes, to assess the welfare impacts of bycatch and entanglement through analysis of necropsy data.

Projects/publications/web links to other relevant information

- Kingston, A., Thomas, L. & Northridge, S. 2021. UK Bycatch Monitoring Programme Report for 2019. Annual report to Defra.

- ICES. 2021. Working Group on Bycatch of Protected Species (WGBYC). ICES Scientific Reports. 3:107. 168 pp. <https://doi.org/10.17895/ices.pub.9256>

- Workshop on estimation of Mortality of Marine Mammals due to Bycatch (WKMOMA)". ICES Scientific Reports. ICES 2021.

- Seafish Ecological Risk Assessment for Southwest Fisheries 2021.

- MacLennan, E. et al (2021) Scottish Entanglement Alliance (SEA) - understanding the scale and impacts of marine animal entanglement in the Scottish creel fishery. NatureScot Research Report 1268.

Key aspects from MacLennan et al. 2021

159 Scottish commercial creel fishers participated in interviews about their experiences of marine animal entanglement within a 10-year period. Almost half had experienced at least one entanglement, with 146 incidents involving at least 12 different species reported in total. Marine animal entanglements are increasing in Scottish waters, affecting a wide range of marine mammal, shark and turtle species. From post-mortem records, entanglement accounts for almost half of all diagnosed causes of death in minke and humpback whales examined, and almost all those for basking shark and leatherback turtles. There appears to be a significant under-reporting of entanglement incidents, with over 95% thought to be going unreported. Most entanglements occur in rope consistent with creel fishing however cases involving trawl netting, marine debris and monofilament line have also been documented. Assessment of photographic records of 256 minke whales off the west coast of Scotland showed that 22.3% had entanglement related marks. The creel industry have actively and positively engaged in this project, and fishers have suggested a variety of possible mitigation measures that they would be willing to trial

### **1.8. Is the perceived level of pressure from bycatch in your country increasing, decreasing, staying the same or unknown?**

Decreasing

Staying the same

Please provide the nature of the evidence and describe per species (Annex B) where applicable.

>>> Short-beaked common dolphin - staying the same

> Both the proportion of strandings examined at post-mortem (CSIP database) and unpublished analysis based on dedicated bycatch observer data indicates that common dolphin bycatch levels in net fisheries are fairly stable over the period 2012-2019.

## **2. Resource Depletion**

**AIM:** to determine areas where, and to what extent, depletion of fish stocks have occurred during the reporting period. In addition; identify ongoing mitigation efforts regarding detrimental implications for small cetaceans.

Relevant Resolutions: 8.9, 8.3, 7.1, 6.1

Depletion in fish stocks due to overfishing and other factors generates pressure on the favourable conservation status of small cetaceans (through possible food shortage). More integrated management and reductions in fishing effort (also prompted by concern about fish stock depletion or other ecosystem considerations) have been encouraged, especially in areas of known risk. Further research, effective fishery regulations and innovation within certain fishing methods are considered to be helpful steps towards mitigating this pressure.

Parties to ASCOBANS have agreed on a number of resolutions that (1) determine the impact of the depletion of fish stocks on small cetaceans, (2) encourage fishing effort reductions and (3) review new information on these depletions to make recommendations. Resource depletion in the Agreement Area requires improved monitoring, collation of data, and consideration of appropriate mitigation measures, while also taking into account similar work in other areas.

It is of particular interest to ASCOBANS to understand the extent of prey depletions, any related ongoing work, monitoring and mitigation measures in the Agreement Area. Countries are requested to provide relevant information.

## **2.4. Is there any evidence within your country's national waters that resource depletion may be impacting small cetaceans (e.g. evidence of starvation)?**

Yes

Please provide details:

>>> Evidence of starvation in several stranded cetaceans through necropsies performed under the strandings monitoring programme. However, it is not possible to confidently link this with resource depletion, as there are multiple drivers for nutritional loss e.g. disease; maternal separation etc.

## **2.5. Are there any national efforts to evaluate cetacean body condition at sea (e.g. surveys)?**

Yes

Please provide details:

>>> Body condition (e.g. nutritional condition, blubber thickness etc) is recorded for cetaceans investigated under post-mortem, although as in 2.4, there are multiple potential causes of nutritional loss such as disease, maternal separation etc. Some regional high-level assessment of body condition via aerial imagery and drone footage is also recorded, but not yet applied in any systematic way.

## **B. Disturbance (incl. potential physical impacts)**

### **3. Noise (impulsive i.e. piling and continuous/ambient i.e. shipping)**

**AIM:** to illustrate progress on understanding, monitoring and mitigating negative effects on small cetaceans from underwater noise during the reporting period.

Relevant Resolutions: 9.2, 9.1, 8.11 (Rev.MOP9), 8.9, 8.6, 8.4 (Rev.MOP9), 8.3, 7.1, 6.2, 6.1

Small cetaceans are especially susceptible to underwater noise due to their high responsiveness to sound and wide hearing range. Good environmental status, as defined by the European Union, suggests that the introduction of energy, including underwater noise, is at levels that do not adversely affect the marine environment. Anthropogenic noise pollution has generally increased in recent times and generates a broad range of frequencies due to a wide variety of human activities. Impulsive and continuous noise present different impacts on small cetaceans, which include communicative masking, behavioural response and physiological injury. Noise in marine environments potentially impedes communication, affects distribution and hence feeding and reproduction of small cetaceans. Studies show that not only cetaceans but also fish and other marine life may be negatively impacted by anthropogenic noise.

Parties to ASCOBANS have agreed on implementation of measures through a number of resolutions that (1) highlight the potential impact that noise pollution may have on small cetaceans in the Agreement Area and (2) commit to reduce the pressure presented by underwater noise. The Agreement Area requires improved monitoring, collation of data, and consideration of appropriate mitigation measures.

To better understand the extent to which noise negatively impacts the health of small cetaceans, and to learn about new work relevant to the topic, countries are requested to provide related information.

### **3.2. Any instances/issues in the reporting period including information on planned or completed significant developments/activities, including the details of monitoring in place before, during and after the project.**

If you selected 'Yes', please provide details in **this table** - download and then attach it using the blue 'link' button below.

You have attached the following documents to this answer.

[Sec-II B 3.2 0.xlsx](#) - Noise disturbance instances/issues (section 3.2)

## **4. Ocean Energy**

**AIM:** to understand the extent and development of current and planned ocean energy projects, and progress in monitoring and mitigation of their negative effects on small cetaceans during the reporting period.

Relevant Resolutions: 8.11 (Rev.MOP9), 8.9, 8.6, 8.3, 6.2

Renewable energy is a necessary component of the efforts to supply the energy needs of human populations while combatting climate change. Efforts to harness renewable energy sources, however, should be conducted in a way that does not have a harmful impact on biological diversity and the marine environment. There are potential adverse effects of ocean energy on small cetaceans from such energy projects. In regard to small cetaceans, this can include potential lethal interactions or injury, negative behavioural impacts from displacement and changes in fecundity, calf survival and juvenile and adult

mortality. There remains uncertainty regarding quantifying the (magnitude of the) pressure from ocean energy production on small cetaceans.

Parties to ASCOBANS have agreed to introduce precautionary measures and procedures for activities surrounding the development of renewable energy in marine environments in order to minimise and mitigate possible effects on small cetaceans, by following best practices. Parties have committed to investigating such pressures and robustly monitoring and mitigating them through environmental impact assessments. Addressing all aspects relevant to the conservation of protected species in regard to ocean energy and collaboration with other organizations working on or potentially interested in the issue is to the benefit of small cetaceans in the Agreement Area.

It is of particular interest to ASCOBANS to understand current and ongoing renewable energy projects in the Agreement Area, mitigation measures and procedures in use and other work relevant to the topic. Countries are requested to provide information relevant to their activities.

**4.1. Were there any new wind energy farms in development/construction during the reporting period?**

If you select 'Yes', please provide details in **this table** - download and then attach it using the blue link button below.

You have attached the following documents to this answer.

[Sec-II B 4.1.xlsx](#) - Wind energy farm data

**4.3. Were there any new tidal energy installations in development/construction during the reporting period?**

If you select 'Yes', please provide details in **this table** - download and then attach it using the blue 'link' button below.

You have attached the following documents to this answer.

[Sec-II B 4.3.xlsx](#) - Tidal energy installation data

**4.4. Were there any new tidal lagoon/barrage installations in development/construction during the reporting period?**

If you select 'Yes', please provide details in **this table** - download and then attach it using the blue 'link' button below.

You have attached the following documents to this answer.

[Sec-II B 4.4.xlsx](#) - Tidal lagoon/barrage installation data

**4.6. How is the pressure managed, incl. relevant regulations / guidelines and the year of implementation (current and planned)?**

- >>> • Managed through statutory consent processes i.e. licensing, environmental assessments, etc.
- All Nationally Significant Infrastructure Projects (NSIP) and Developments of National Significance (DNS) in Wales required to go through the Planning Inspectorate process in England and undertake EIAs and HRAs under the various national and EU legislation.
- In relation to offshore wind construction in the Southern North Sea SAC, there is also the requirement for projects to undertake a pre-construction Site Integrity Plan (SIP)
- Underwater noise guidance for noisy activities in SACs published by JNCC, NE and DAERA (2020).
- JNCC mitigation guidelines for underwater explosions, seismic activity and pile driving.
- All marine projects in Scotland licensed through Marine Scotland and required to go through EIA and HRA
- All marine projects in Northern Ireland licensed through DAERA and required to go through EIA and HRA
- All marine projects in Wales licensed through Natural Resources Wales and required to go through EIA and HRA
- The Planning Act 2008 (PA2008) process was introduced to streamline the decision-making process for major infrastructure projects, making it fairer and faster for communities and applicants alike.  
<https://infrastructure.planninginspectorate.gov.uk/application-process/the-process/>

**4.8. Mark the perceived level of pressure from ocean energy in your country in the table below.**

For example, active construction of new developments could increase the pressure, while decommissioning or addition of mitigation measures to pre-existing projects could decrease the pressure.

	<b>1. Status relative to previous years [Increasing, Decreasing, Staying the same, Unknown, Not Applicable]</b>	<b>2. Nature of the evidence</b>
Tidal lagoon/barrage		
Tidal energy		

Wave power		
Wind energy		

## C. Habitat Change and Degradation (incl. potential physical impacts)

### 9. Marine Debris (ingestion and entanglement)

**AIM:** to illustrate progress, during the reporting period, on understanding, monitoring and mitigating impacts of marine debris on small cetaceans.

Relevant Resolutions: 8.8, 8.3, 6.1

Marine debris, such as macroplastics and discarded fishing gear, poses a threat to small cetaceans due to the potential for these materials to be ingested or to cause entanglement. Commercial fishing operations, recreational fishing and cargo shipping are notable sources of this material, of which the majority is plastic and ghost nets. However, it is assumed that most of the marine litter worldwide comes from land, although this differs per region. Even small amounts of macroplastics that have been ingested may present serious effects on small cetaceans, such as detrimental influence on the gastrointestinal tract or leaching pollutants into the body, potentially leading to mortality or reduced body condition. Entanglement is well-established as a threat to small cetaceans as plastic debris continues to accumulate in aquatic environments, and may cause physical injuries, reduced survival or drowning.

To better understand the impact of marine debris on small cetaceans and measures in place to mitigate these effects, countries are requested to provide relevant information.

Note: Includes macroplastics and discarded fishing gear. Microplastics are covered under Section C 10 Pollution and Hazardous Substances.

#### 9.1. Does your country have monitoring in place to assess levels of marine debris?

Yes. Please provide information below.

Include parameters provided through monitoring (e.g. type of litter (size, shape, material), amount, impacts on species, geographical location, etc.).

>>> Benthic litter

Centre for Environment, Fisheries and Aquaculture Science (Cefas) coordinate and undertake benthic trawl surveys within UK EEZ, which captures benthic litter data. Trawl surveys are a practical way to monitor seafloor litter because they are already ongoing for fish stock assessments, cover a wide surface, and collect a suitable quantity of litter for analysis. For each survey the following information was recorded: the definition and specification of the survey, the positions of stop and start of each trawl and its technical specification, such as wingspan, mesh size of net, cod end and blinders. After each tow, fish were deposited in the fish pound or hopper before being sorted, then all litter items were manually picked from the entire net, including ground ropes, lines, hopper and cod end, and classified according to the Cefas classification system which was adopted in the guidance document on Monitoring of Marine Litter in European Seas (OSPAR Commission, 2017 - <https://www.ospar.org/documents?d=37515>).

<https://moat.cefas.co.uk/pressures-from-human-activities/marine-litter/seafloor-litter/>

Beach litter

Abundance of beach litter is abundance of litter relies on data collected on a 100 m stretch of coastline during the annual Marine Conservation Society's Great British Beach Clean, which takes place annually on the third weekend of September collected quarterly on beaches Northern Ireland by Keep Northern Ireland Beautiful.

<https://moat.cefas.co.uk/pressures-from-human-activities/marine-litter/beach-litter/>

Floating litter

Floating litter is assessed through necropsy examinations of corpses of dead beached birds are collected by volunteer networks and processed at experienced laboratories. At dissection, in addition to the date, the discovery location is specified by a system of area codes and geographical coordinates for the area. Based on several internal and external anatomical characteristics, birds are classified as either adults or non-adults. Stomach contents are carefully rinsed in a sieve with a 1mm mesh and then transferred to a petri dish for sorting under a binocular microscope. Two types of plastic categories are distinguished in the OSPAR Common Indicator. Industrial plastic pellets are separated from consumer debris such as sheets, foams, threadlike materials and hard fragments.

<https://moat.cefas.co.uk/pressures-from-human-activities/marine-litter/floating-litter/>

Marine debris ingestion/entanglement

As part of its contract with UK government, the UK strandings programme routinely records and summarises evidence of marine debris ingestion and/or entanglement found in UK stranded cetaceans which were subjected to post-mortem examination (see section 9.2). Further, the Scottish Marine Animal Stranding Scheme (SMASS) has developed an app which records levels of litter noted on surveyed sections of coastline. Abandoned, Lost or Discarded fishing gear is also being assessed via an ongoing project currently in its second phase. The report from the 2018-19 phase can be found here:

<http://sciencesearch.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&>

## 9.2. Are these data publicly available?

Please provide web link.

Yes

You have attached the following Web links/URLs to this answer.

[Abandoned/Lost/Discarded Fishing Gear](#) - Evidence review of abandoned, lost or otherwise discarded fishing gear  
[ICES Trawl Surveys DATRAS Portal](#) - Data generated from Cefas benthic trawl surveys are publicly available to download from the ICES hosted Trawl Surveys DATRAS Portal

## 9.3. What species of small cetaceans were found to have been impacted by marine debris? Please provide details in the table.

Please provide details in **this table** - download and then attach it using the blue 'link' button below.

You have attached the following documents to this answer.

[Sec-II C 9.3 0.xlsx](#) - United Kingdom Section II C 9.3

## 9.4. Are there any mitigation measures in place?

Mitigation measures might include changes in gear to prevent loss, entanglement response, adoption of measures to reduce land-based/boat-based sources of marine debris, etc.

No

## 9.5. How is marine debris managed?

Include relevant regulations/guidelines and the year or implementation, current and planned.

>>> There are various litter strategies published, aiming to reduce waste entering the environment e.g. <https://www.gov.uk/government/publications/litter-strategy-for-england>; <https://www.gov.scot/policies/marine-environment/marine-litter/>. This has resulted in changes such as plastic bag charges and ban on use of microbeads.

## 9.6. Relevant new research/work/collaboration on marine debris in your country.

List initiatives/projects (incl. PhD, MSc); publications (reports, theses, papers in journals, books) from any study; web links to other relevant information (e.g. link to OSPAR reports).

>>> Data on marine debris ingestion in UK stranded cetaceans examined by CSIP/SMASS will be published in annual report appendices

- Brownlow, A., Davison, N.J. and ten Doeschate, M. (in press) Scottish Marine Animal Strandings Scheme Annual Report 2021
- Deaville, R. (compiler) (in press) Cetacean Strandings Investigation Programme Annual report, 2021

## 9.7. Is the perceived level of pressure from marine debris in your country increasing, decreasing, staying the same, or unknown?

Unknown

Please provide the nature of the evidence and describe per species (Annex B) where applicable:

>>> Nature of evidence: All species - UK strandings programme (necropsies)

Additional comments: A very low incidence of marine debris ingestion and marine debris entanglement is recorded from necropsies of UK stranded small cetaceans (e.g. Deaville et al. (2019) CSIP 2011-2017 final contract report (Appendices) pp. 19-231) with all cases during the reporting period representing non-fatal and incidental observations.

1[http://sciencesearch.defra.gov.uk/Document.aspx?Document=14579\\_AppendicestoFINALCSIPContractReport2011-2017.pdf](http://sciencesearch.defra.gov.uk/Document.aspx?Document=14579_AppendicestoFINALCSIPContractReport2011-2017.pdf)

### III. Surveys and Research

#### A. Biological Information (per species)

##### 1. Abundance Estimates

**AIM:** to provide new information on abundance and life history parameters of small cetaceans during the reporting period.

Relevant Resolutions: 8.5 (Rev.MOP9), 8.4 (Rev.MOP9), 8.3, 7.1, 6.1, 5.7, 5.5, 4.7, 3.5, 3.3

Abundance estimates and information on life history are of critical importance for the determination of broader species attributes such as populations levels, health and overall status. These parameters can contribute towards determination of GES and provide a reference for mortality events. Abundance and life history parameters are typically assessed from monitoring programmes. Fluctuations in these parameters can provide insight into trends in populations. Information on abundance and life history parameters can inform the need for mitigation measures, and regional assessment of these parameters allows for a more spatially targeted and concentrated response to support national assessments.

In the ASCOBANS Area, small cetacean abundance and life history should be monitored in response to a number of ASCOBANS resolutions. Continued monitoring of these parameters is essential to understanding current status and trends.

##### 1.1. Did your country conduct national dedicated surveys on abundance and distribution during the reporting period?

If you select 'Yes', please provide details in **this table** - download and then attach it using the blue 'link' button below. Attach maps separately, clearly marking which survey they apply to.

Note: Information relevant to SCANS-III is to be provided in Questions 1.2.

No

##### 1.2. Other relevant new research/work/collaboration on abundance estimates in regard to small cetaceans in your country during the reporting period.

List initiatives/projects (incl. PhD, MSc); publications (reports, theses, papers in journals, books) from any study and information relevant to SCANS-III; web links to other relevant information.

>>> • Distribution maps of cetacean and seabird populations in the North-East Atlantic can be found here:

<https://besjournals.onlinelibrary.wiley.com/doi/full/10.1111/1365-2664.13525>

• Joint Cetacean Data Programme (JCDP) is in development, to house existing and future at sea cetacean monitoring data for future analyses in lieu of more regular widescale survey effort.

• Covid impacted the collection of data during 2021.

##### 1.3. Is the abundance of species in your country increasing, decreasing, staying the same, or unknown?

Unknown

Please provide the nature of the evidence and describe per species (Annex B) where applicable:

>>> Nature of evidence: for all species evidence comes from Article 17 (2019) assessments.

Additional comments: Assessments will be updated via the OSPAR QSR23 indicator assessments; following SCANS IV surveys in June/July 2022; and through analysis of the JCDP collated dataset.

#### 2. New Information on Life History Parameters

##### 2.1. Is there new information on the following life history parameters in the reporting period?

For each life history parameters, please identify the species and provide web links and details where applicable.

	1. Yes / No	2. Describe per species
Other relevant factors	No	
Age and sex structure	No	
Diet	No	
Longevity	No	
Potential reproductive span/capacity	No	

Calf and adult mortality rates	No	
Inter-birth intervals	No	
Age of sexual and physical maturity	No	

## B. Monitoring Programmes

### 3. Overview of Current Monitoring and Survey Schemes

**AIM:** to provide information on the progress of monitoring programmes, relevant methodologies and aims thereof, and status of small cetaceans during the reporting period.

Relevant Resolutions: 8.11 (Rev.MOP9), 8.9, 8.8, 8.5 (Rev.MOP9), 8.4 (Rev.MOP9), 8.3, 7.3, 7.1, 6.1, 5.7  
Monitoring programmes provide important data on biological and environmental attributes, such as population status, abundance and spatial-temporal distribution. They create opportunities for new research and development, including potential improvements to methodology for monitoring in terms of accuracy, practicality and cost efficiency.

In the ASCOBANS Area, application of coherent monitoring programmes focused on small cetaceans, which collect and provide objective, robust and comparable data, is a key component in understanding and improving the conservation status of small cetaceans through appropriate management. Parties have agreed to design, implement and support relevant monitoring programmes through a number of resolutions. Such efforts are also supported by legislation from a number of bodies which identify monitoring as a requirement in management systems. Additionally, Parties have been encouraged to coordinate their monitoring programmes, which promotes international cooperation and synergies. Parties have also been encouraged to review such monitoring programmes and propose improvements for the betterment of conservation efforts.

It is the interest of ASCOBANS to understand the current monitoring programmes utilised, their outputs, and future activities in the Agreement Area. Countries are requested to provide information relevant to their activities as well as potential improvements to such programmes and efforts.

#### 3.1. Did your country have national monitoring programmes that enabled assessment of the Conservation Status of small cetaceans in your waters (i.e. provides abundance estimates and/or life history parameters and information on pressures) during the reporting period?

If you select 'Yes', please provide details in **this table** - download and then attach it using the blue 'link' button below.

Yes. Please provide details in the table.

You have attached the following documents to this answer.

[Sec-III\\_B\\_3.1.xlsx](#) - United Kingdom Section III B 3.1

#### 3.2. Please provide the relevant information regarding aerial surveying activities.

Provide the number of surveys, area covered, relevant species, and timeframe of the survey.

>>> N/a

#### 3.3. Please provide the relevant information regarding Passive Acoustic Monitoring (PAM).

Provide the location of moored instruments, timeframe of the survey, the relevant species, and the make and model of instruments used.

>>> N/a

#### 3.4. Are any of these programmes carried out in collaboration with other countries?

No

Please provide the collaborators and links per programme.

>>> N/a

#### 3.5. Please provide details on any planned activities relevant to monitoring programmes.

Provide web links if available.

>>> N/a

#### 3.6. Relevant outputs/findings from monitoring programmes to note.

Per species, please identify the relevant outputs.

Provide web links if available.

>>> N/a

### **C. Other Research (not mentioned elsewhere in Section II, II, or IV)**

**Please provide relevant information in regard to other research (not mentioned elsewhere in Sections II, III, IV).**

Per project, please provide the institution, duration, aim(s)/objective(s), and the method.

>>> See outputs under UK Stranding Programmes (Section IV, 1.10)

## IV. Use of Strandings Records

### A. Stranding Network and Strandings

**AIM:** to provide information on stranding events and demonstrate progress of stranding networks in understanding, monitoring and mitigating strandings of small cetaceans.

Relevant Resolutions: **8.10 (Rev.MOP9)**, 8.7, 8.4 (Rev.MOP9), 8.3, 7.4, 7.3, 7.1, 6.1, 5.7

Stranding of cetaceans is an ever-present occurrence and analysis through necropsy and sampling can provide indications of reason for injury and death. Stranding numbers also provide information on population status, abundance and distribution. Effective response to strandings contributes to the maintenance of favourable conservation status of small cetaceans and also has implications for animal welfare. Comprehensive stranding networks are a critical asset in managing small cetacean strandings and have resulted in large numbers of animals rescued and returned to sea. These networks also have the capacity to guide the public on animal welfare, human health and safety considerations during stranding events.

In the effort to mitigate the anthropogenic causes of these occurrences, Parties have agreed to measures through a number of resolutions. Continued monitoring of stranding causation and further developing guidance for best practices in stranding response and necropsies was identified by Parties as important tasks to pursue, as was setting up stranding response networks. This information is to align with appropriate sampling practices and countries should ensure that the data is available for researchers. Additionally, development and support of international strandings databases and regular reporting is conducted through relevant research institutes and stranding schemes. ASCOBANS Secretariat encourages the ongoing funding and support of engagement with organizations for further development of guidelines, best practices and maintaining dataflow for capacity building across stranding networks.

To better understand the extent to which stranding events occur and how these events are managed, it is the interest of ASCOBANS for countries to provide the relevant information on these occurrences within the Agreement Area, procedures undertaken in response to stranding events, necropsies and information on stranding networks.

#### 1.1. Is there a national stranding network in place?

Yes

Please provide details:

>>> The collaborative Cetacean Strandings Investigation Programme (CSIP) and the Scottish Marine Animal Strandings Scheme (SMASS) are contracted to collect/collate, analyse and report data on all cetacean strandings around the UK coast; and to undertake post-mortem examinations on a proportion of stranded animals to learn more about the anthropogenic pressures these species face in UK waters. The CSIP is contracted by Defra and the Devolved Government of Wales to investigate strandings around the coast of England and Wales. SMASS is contracted by Scottish Government to investigate strandings around the coast of Scotland.

Partner organisations of the CSIP are the Institute of Zoology, Zoological Society of London (ZSL), the Natural History Museum (NHM), Marine Environmental Monitoring (MEM), Cornwall Wildlife Trust Marine Strandings Network (CWTMSN) and Cornwall Marine Pathology Team (CMPT).

#### 1.2. Does the national stranding network cover the whole, or part of the reporting country's coastline?

Whole coastline

Please provide details:

>>> N/a

#### 1.3. Are necropsies carried out to determine cause of death?

Yes

Please provide details:

>>> All cetacean post-mortem investigations (including tissue sampling) in the UK during 2021 were conducted using standardized and systematic necropsy procedures.

More details can be found at the following reference:

ASCOBANS/ACCOBAMS. 2019. "European Best Practice on Cetacean Post-mortem Investigation and Tissue Sampling." OSF Preprints. October 7. doi:10.31219/osf.io/zh4ra <https://osf.io/zh4ra/>

#### 1.4. Is there a database of strandings?

Yes. Continue to Question 1.5.

#### 1.5. Is there data available online or downloadable on request?

No

Please provide details:

>>> The current CSIP web accessed relational database (<http://data.ukstrandings.org/>) facilitates the entry of data on UK stranded cetaceans, marine turtles, large bodied sharks and seals by partners within the CSIP consortium. Although not currently public facing, project is underway to facilitate direct display and access to data by the public and other stakeholder (anticipated delivery 2023). Regional web accessible databases and offline databases are also held by the SMASS and the Cornwall Wildlife Trust Marine Strandings Network.

#### 1.6. Provide details for any new institution(s) responsible for a stranding database, responding to live-strandings, collection of carcasses, and for conducting necropsies.

Please identify the new responsible institution(s) and provide their: responsibility (responding to live-strandings, collection of carcasses, necropsies, stranding database), phone number, email, and website.

>>> In addition to institutions recorded in previous ASCOBANS reports, updated contact details are also given for the following:

- SMASS (now hosted by/at the University of Glasgow)
- Cornwall Marine Pathology Team (moved from previous host of University of Exeter)

Further/updated details given below.

Responsible Institution: Scottish Marine Animal Strandings Scheme (SMASS)

Responsibility: Collection of carcasses; Necropsies; Stranding database

Phone number: +447979245893

Email(s): [andrew.brownlow@glasgow.ac.uk](mailto:andrew.brownlow@glasgow.ac.uk); [Nick.Davison@glasgow.ac.uk](mailto:Nick.Davison@glasgow.ac.uk); [Marisel.tendoeschate@glasgow.ac.uk](mailto:Marisel.tendoeschate@glasgow.ac.uk)

Website: <https://strandings.org>

Additional comments: coordinates strandings investigation in Scotland.

Responsible Institution: Cornwall Marine Pathology Team

Responsibility: Collection of carcasses; Necropsies

Phone number: N/a

Email(s): [jamesbarnettvet@gmail.com](mailto:jamesbarnettvet@gmail.com)

Website: N/a

Additional comments: coordinates strandings investigation (necropsies) in Cornwall, alongside CWTMSN (strandings data collection and coordination)

#### 1.7. Were cases photographed, measured or sampled even if not collected for necropsy during the reporting period?

Yes

Please provide details:

>>> Photographs from a majority of UK stranding events (including those not recovered for necropsy) are routinely sent to national and regional stranding network/s from members of public, local authorities and other reporting bodies.

In addition, in Scotland the SMASS strandings volunteer network collects photos, data and samples from a large number of non-necropsied animals (<https://strandings.org/smass/about/volunteer/>). In Cornwall, the Cornwall Wildlife Trust Marine Strandings (CWTMSN) Network volunteer scheme

(<https://www.cornwallwildlifetrust.org.uk/what-we-do/our-conservation-work/at-sea/marine-strandings-network>) routinely photographs and records morphometric data from non-necropsied animals, also conducted alongside its Bycatch Evidence Evaluation Protocol (BEEP) programme. In the rest of England and in Wales, ad hoc collection of samples takes place on rarer species, through contacts with volunteers from British Divers Marine Life Rescue (BDMLR) and other voluntary and statutory bodies.

For more details, see national and regional annual reports (see Section 1.10)

#### 1.8. Were there recorded stranding events in your country during the reporting period?

If you select 'Yes', please provide details in **this table** - download and then attach it using the blue 'link' button below. Provide details relevant for recorded stranding events during the reporting period.

Yes

How many strandings occurred during the reporting period (specify live and dead)? Please also provide

more details in the table.

>>> n=984 small cetaceans (903 dead strandings; 81 live strandings)

Additional comments on table

Bottlenose dolphin: Large scale bottlenose dolphin mass stranding recorded at Nigg Bay, Highland, Scotland on 14th August 2021, accounting for all live stranded individuals in this table. Further details are available in the 2021 SMASS annual report.

Atlantic white-sided dolphin: Mass stranding of Atlantic-white sided dolphins recorded at Bayhead, Stornoway, Western Isles, Scotland on 8th August 2021, accounting for all live stranded individuals in this table. Further details are available in the 2021 SMASS annual report.

Please note that annual stranding figures above are given for the UK as a whole. Specific OSPAR regions not detailed as it would be too complex to provide a breakdown over the six regions across the UK.

In addition, the UK strandings programme also records data on cetaceans found entangled in gear or floating dead at sea (n=34 small cetaceans, 2021). A number of indeterminate identity small cetacean species were also recorded during 2021 (data not presented above). For further detail on UK strandings (2021), see relevant UK annual reports (see section 1.10 below).

You have attached the following documents to this answer.

[Sec-IV\\_A\\_1.8\\_0.xlsx](#) - Section IV A 1.8

### **1.9. Were any necropsies conducted during the reporting period?**

Yes. Provide information below.

Per necropsy, please provide: the protocol used for dissection/methodologies/collection of samples etc., number of carcasses necropsied, what causes of death were identified (add percentage if available), and any additional comments.

>>> Protocols: ASCOBANS/ACCOBAMS. 2019. "European Best Practice on Cetacean Post-mortem Investigation and Tissue Sampling." OSF Preprints. October 7. doi:10.31219/osf.io/zh4ra <https://osf.io/zh4ra/>

Number of carcasses necropsied: 102 (2021, all small cetacean species)

Causes of death: various - see national and regional annual reports (Section 1.10)

Comment: See national and regional annual reports for further details (Section 1.10)

Additional comments: 102 small cetacean necropsies conducted during 2021- wide variety of causes of death recorded and a large number of samples were collected. Further information and detail is available in CSIP and SMASS annual reports for the period.

### **1.10. Other relevant new research/work/collaboration on strandings and stranding networks in your country.**

List initiatives/projects (incl. PhD, MSc); publications (reports, theses, papers in journals, books) from any study; web links to other relevant information.

>>> Peer reviewed literature

• Androulakakis, A., Alygizakis, N., Gkotsis, G., Nika, M.C., Nikolopoulou, V., Bizani, E., Chadwick, E., Cincinelli, A., Claßen, D., Danielsson, S., Dekker, R., Duke, G., Glowacka, N., Jansman, H., Krone, O., Martellini, T., Movalli, P., Persson, S., Roos, A. O'Rourke, E., Siebert, U., Treu, G., van den Brink, N.W., Walker, L.A., Deaville, R., Slobodnik, J. and Thomaidis, N. (2021). Determination of 56 per- and polyfluoroalkyl substances in top predators and their prey from Northern Europe by LC-MS/MS. *Chemosphere*, 287 131775. <https://doi.org/10.1016/j.chemosphere.2021.131775>

• Ball, R. J., Kitchiner, A., Davison, N. J., Brownlow, A., Berrow, S., McKeown, N. J., IJsseldijk, L. L., Geary, M., McDowall, I., & Muir, A. P. (2021). New haplotypes found in stranded long-finned pilot whales (*Globicephala melas*) in the eastern North Atlantic and adjacent waters. *Marine Mammal Science*, 1- 15. <https://doi.org/10.1111/mms.12893>

• Carroll, E.L., McGowen, M.R., McCarthy, M.L., Marx, F.G., Aguilar, N., Dalebout, M.L., Dreyer, S., Gaggiotti, O.E., Hansen, S.S., van Helden, A., Onoufriou, A.B., Baird, R.W., Baker, C.S., Berrow, S., Cholewiak, D., Claridge, D., Constantine, R., Davison, N.J., Eira, C., Fordyce, R.E., Gatesy, J., Greg Hofmeyr G.J., Martín, V., Mead, J.G., Mignucci-Giannoni, A.A., Morin, P.A., Reyes, R., Rogan, E., Rosso, M., Silva, M.A., Springer, M.S., Steel D. and Tange Olsen, M. (2021) Speciation in the deep: genomics and morphology reveal a new species of beaked whale *Mesoplodon eueu*. *Proceedings of the Royal Society B* <https://doi.org/10.1098/rspb.2021.1213>

• Ceccolini, M.E., Wessels, M., Macgregor, S.K., Deaville, R., Perkins, M., Jepson, P.D., John, S.K. and Guthrie, A. (2021) Systemic Erysipelothrix rhusiopathiae in seven free-ranging delphinids stranded in England and Wales. *Dis Aquat Organ*. 145:173-184. doi: 10.3354/dao03609. PMID: 34263732.

• Dagleish, M.P., Perri, A., Maley, M., Ballingall, K.T., Baily, J.L., Davison, N.J., Brownlow, A.C. and Rocchi, M.S. (2021) Novel Dermatitis and Relative Viral Nucleic Acid Tissue Loads in a Fin Whale (*Balaenoptera physalus*) with Systemic Cetacean Morbillivirus Infection, *Journal of Comparative Pathology*, 183 pp 57-62 <https://doi.org/10.1016/j.jcpa.2021.01.005>

• Davison, N.J., Brownlow, A., ten Doeschate, M., Dale, E-J., Foster, G., Muchowski, J., Perrett, L.L., Rocchi, M., Whatmore, A.M. and Dagleish, M.P. (2021) Neurobrucellosis due to *Brucella ceti* ST26 in Three Sowerby's Beaked Whales *Journal of Comparative Pathology*, 182, pp 1-8, <https://doi.org/10.1016/j.jcpa.2020.10.005>.

• Davison, N.J., Dagleish, M.P., Dale, E.J., ten Doeschate, M. Muchowski J., Perrett, L.L., Rocchi, M., Whatmore,

A.M. and Brownlow, A. (2021) First confirmed reports of the isolation of *Brucella ceti* from a Risso's dolphin *Grampus griseus* and a killer whale *Orcinus orca*. *Dis Aquat Org* 145:191-195.

<https://doi.org/10.3354/dao03612>

• Davison NJ, Dagleish MP, ten Doeschate M, Muchowski J., Perrett, L.L., Rocchi, M., Whatmore, A.M. and Brownlow, A. (2021) Meningoencephalitis in a common minke whale *Balaenoptera acutorostrata* associated with *Brucella pinnipedialis* and gamma-herpesvirus infection. *Dis Aquat Org* 144:231-235.

<https://doi.org/10.3354/dao03590>

• Foote, A. D., Hooper, R., Alexander, A., Baird, R. W., Baker, C. S., Ballance, L., Barlow, J., Brownlow, A., Collins, T., Constantine, R., Dalla Rosa, L., Davison, N. J., Durban, J. W., Esteban, R., Excoffier, L., Martin, S. L. F., Forney, K. A., Gerrodette, T., Gilbert, M. T. P., Morin, P. A. (2021). Runs of homozygosity in killer whale genomes provide a global record of demographic histories. *Molecular Ecology*, 30, 6162– 6177.

<https://doi.org/10.1111/mec.16137>

• Louis, M., Galimberti, M., Archer, F., Berrow, S., Brownlow, A., Fallon, R., Nykänen, M., O'Brien, J., Roberston, K.M., Rosel, P.E., Simon-Bouhet, B., Wegmann, D., Fontaine, M.C., Foote, A.D. and Gaggiotti, O.E. (2021) Selection on ancestral genetic variation fuels repeated ecotype formation in bottlenose dolphins. *Science Advances* <https://doi.org/10.1126/sciadv.abg1245>

• Smith, K.J., Trueman, C.N., France, C.A.M., Sparks, J.P., Brownlow, A., Dähne, M., Davison, N.J., Guðmundsson G., Khidas, K., Kitchener, A.C., Langeveld, B.W., Lesage, V. Meijer, H.J.M., Ososky, J.J., Sabin, R.C., Timmons, Z.L., Víkingsson, G.A., Wenzel, F.W. and Peterson, M.J. (2021) Stable Isotope Analysis of Specimens of Opportunity Reveals Ocean-Scale Site Fidelity in an Elusive Whale Species. *Frontiers in Conservation Science*, 2 <https://www.frontiersin.org/article/10.3389/fcosc.2021.653766>

• Subirana, M.A., Paton, L., Hall, J., Brownlow, A., Krupp, E.M., Feldmann, J., and Schaumlöffel, D. (2021) Development of Mercury Analysis by NanoSIMS for the Localization of Mercury-Selenium Particles in Whale Liver. *Anal. Chem.* 2021, 93, 37, 12733-12739 <https://doi.org/10.1021/acs.analchem.1c02769>

• Wessels, M.E., Deaville, R., Perkins, M.W., Jepson, P.D., Penrose, R., Rocchi, M.S., Maley, M., Ballingall, K.T. and Dagleish, M.P. (2021) Novel Presentation of DMV-Associated Encephalitis in a Long-Finned Pilot Whale (*Globicephala melas*) *Journal of Comparative Pathology* 183:51-56.

• Williams, R. S., Curnick, D. J., Brownlow, A., Barber, J. L., Barnett, J., Davison, N. J., Deaville, R., ten Doeschate, M., Perkins, M., Jepson, P. D., & Jobling, S. (2021). Polychlorinated biphenyls are associated with reduced testes weights in harbour porpoises (*Phocoena phocoena*). *Environment International*, 150, [106303]. <https://doi.org/10.1016/j.envint.2020.106303>

• Williamson, M.J., ten Doeschate, M.T.I., Deaville, R., Brownlow, A.C. and Taylor, N.L. (2021) Cetaceans as sentinels for informing climate change policy in UK waters. *Marine Policy*, 131, <https://doi.org/10.1016/j.marpol.2021.104634>

PhD Thesis

• Williams, R. (2021) Persistent organic pollutants: assessing the threat to cetaceans. PhD thesis, Brunel University London <https://bura.brunel.ac.uk/handle/2438/23134>

Reports

• Brownlow, A., Davison, N.J. and ten Doeschate, M. (in press) Scottish Marine Animal Strandings Scheme Annual Report 2021

• Crosby, A. and Hawtrey-Collier, A. (in press) Cornwall Wildlife Trust Marine Strandings Network 2021 Annual Summary report of Marine Strandings in Cornwall and the Isles of Scilly.

• Deaville, R. (compiler) (in press) Cetacean Strandings Investigation Programme Annual report, 2021

• Westfield, M. (in press). Marine Mammal & Marine Turtle Strandings (Welsh Coast) Annual Report 2021

• MacLennan, E., Hartny-Mills, L., Read, F.L., Dolman, S.J., Philp, A., Dearing, K.E., Jarvis, D. and Brownlow, A.C. (2021) Scottish Entanglement Alliance (SEA) - understanding the scale and impacts of marine animal entanglement in the Scottish creel fishery. *NatureScot Research Report* 1268.

<https://www.nature.scot/doc/naturescot-research-report-1268-scottish-entanglement-alliance-sea-understanding-scale-and-impacts>

## **VII. Other Matters**

### **B. Difficulties in implementing the Agreement.**

>>> Covid has posed significant issues with implementation, both in terms of carrying out planned, and funding new projects.