

# 1 **Written evidence submitted by Mr Mark Peter Simmonds (MM0016)**

## 2 **Contribution for the EFRA Inquiry into Marine Mammal Conservation**

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4 I warmly welcome the EFRA inquiry into marine mammal conservation and the opportunity  
5 to contribute to its evidence base. I have spent most of my career working on the issues  
6 affecting marine mammals, including more than two decades of experience of the relevant  
7 international agreements. I would like to focus here on the international dimensions of the  
8 inquiry's work, being confident that others will provide helpful input on national issues. I am  
9 a biologist and environmental scientist specialising in the threats present and emerging facing  
10 marine mammals. My publications, which cover chemical and noise pollution, whaling and  
11 other hunting, climate change, animal culture and other matters, can be found on  
12 ResearchGate<sup>1</sup>, and some are referred to below. I have attended and contributed to all of the  
13 meetings of the International Whaling Commission (IWC)'s Scientific Committee and all the  
14 IWC's meetings of parties (the Commission meetings) since 1996. In recent years this has  
15 mainly been as a member of the UK delegations although I have also served as an adviser to  
16 the delegations of other European countries. I have contributed to many other IWC-related  
17 meetings and chaired and convened several of its intersessional workshops, including the  
18 latest one on climate change held virtually at the end of last year<sup>2</sup>. I am the Director of  
19 Science for OceanCare, a marine-focused non-governmental organisation, and I am a Visiting  
20 Research Fellow at the University of Bristol, a member of the Species Survival Commission  
21 of the International Union for Conservation of Nature (IUCN) and the CoP-Appointed  
22 Councillor for Marine Pollution for the Convention on the Conservation of Migratory Species  
23 (CMS).

### 24 **1. What is the status of marine mammal populations?**

25 The issue of the current statuses of the world's marine mammals is a complex one and far  
26 from static. The 'gold standard' is provided by the Red Data List of the IUCN, which is  
27 generally regarded as the world authority. However, it should also be noted that the species  
28 concept does not always work well for cetaceans. Orcas or killer whales, *Orcinus orca*, for  
29 example, might be best regarded as a species complex rather than one global species.  
30 Additionally, new cetacean species are regularly being described. Sometimes newly  
31 described species are also rapidly recognised as threatened. For example, Rice's whale,  
32 *Balaenoptera ricei*, which is found in USA and Mexican waters, and which was recognised  
33 in 2021 is 'critically endangered'. The situation of Lahille's Bottlenose Dolphin, *Tursiops*  
34 *truncatus gephyreus*, is similar: recently described as a new sub-species it is now classified as  
35 'vulnerable'.

36 In 2020, hundreds of cetacean experts from more than forty countries released a statement  
37 about their 'grave concerns' related to the extinction risk to many species and populations of  
38 cetaceans.<sup>3</sup>

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<sup>1</sup> <https://www.researchgate.net/profile/Mark-Simmonds-2>

<sup>2</sup> <https://iwc.int/resources/media-resources/news/climate-change-workshop-report-is-published>

<sup>3</sup> <https://www.mammalresearchinstitute.science/whale-unit> Please click on 'The Real and Imminent Extinction Risk to Whales, Dolphins and Porpoises'.

39 Among other points the signatories noted the following:

- 40 • The lack of concrete action to address threats adversely affecting cetaceans in our  
41 increasingly busy, polluted, over-exploited and human-dominated seas and major  
42 river systems, means that many, one after another, will likely be declared extinct  
43 within our lifetimes.
- 44 • That even the large whales are not safe. The recent listing of the North Atlantic right  
45 whale, *Eubalaena glacialis*, by the IUCN as ‘critically endangered’ was presented as  
46 an example<sup>4</sup>. Similarly highlighted was a critically endangered ‘small cetacean’, the  
47 vaquita, *Phocoena sinus*, of the Gulf of California, Mexico. It is now almost  
48 inevitable that these two species will follow the baiji or Chinese river dolphin, *Lipotes*  
49 *vexillifer*, down the road to extinction<sup>5</sup>.
- 50 • More than half of the living cetacean species had concerning conservation status, as  
51 of 2020, being listed as 'critically endangered', 'endangered', 'vulnerable' or 'near  
52 threatened', whilst many species were 'data deficient'<sup>6 7</sup>.

53 Additionally, it was noted in the statement that there were many subspecies and other distinct  
54 cetacean populations which have been assessed and which were either ‘endangered’ or  
55 ‘critically endangered’. One of these is the harbour porpoise population of the Baltic Sea,  
56 *Phocoena phocoena* ssp. *relicta*. The harbour porpoise is a diminutive and little recognised  
57 species, which is also found in UK waters, and which has several distinct populations, some  
58 of which, in addition to the Baltic population, are of conservation concern<sup>8</sup>.

## 59 **2. How, and for what purpose, are marine mammals being killed?**

60 Worldwide, marine mammals are killed to allow profit to be made from their meat or other  
61 products (for example the commercial whaling<sup>9</sup> conducted by Norway and Japan)<sup>10</sup>. Many are  
62 killed in fishing operations, and I am sure that others will address this matter in detail for the  
63 EFRA inquiry. Whilst there are no recent estimates, the annual global loss to fisheries is  
64 probably in the hundreds of thousands and for some populations this ‘bycatch’ is regarded as  
65 the most immediate threat to their survival. Some are killed for bait, others because they are  
66 perceived to be in competition with human fisheries or adversely affecting aquaculture.

67 The focus of this contribution is on cetaceans, and I anticipate that there may be significantly  
68 less contributed concerning seals and other marine mammals. However, this does not mean  
69 that there are no concerns about seals and the other species, and I note a recent paper on seal  
70 hunting in Europe which may be relevant<sup>11</sup>. In this paper we provided information on the

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<sup>4</sup> This species would have at one time occupied UK and other European waters.

<sup>5</sup> The baiji was identified as 'Possibly Extinct' by the IUCN in 2017.

<sup>6</sup> 'Data Deficient' species or populations may also be imperiled. The lack of clear information about so many species and populations is itself a major concern.

<sup>7</sup> Please note that the Red List is regularly updated and so some changes will have been made to the cetacean listings since 2020.

<sup>8</sup> <https://www.frontiersin.org/articles/10.3389/fmars.2021.617478/full>

<sup>9</sup> An important distinction is made between commercial and ‘aboriginal subsistence whaling’ by the IWC. This is well described in the paper by Nick Gales mentioned below.

<sup>10</sup> A recent review of whaling activities in Europe, including the scale of takes is available here:  
[https://www.oceancare.org/wp-content/uploads/2021/04/UNDER-PRESSURE\\_Chapter-05\\_whaling\\_low-res\\_web.pdf](https://www.oceancare.org/wp-content/uploads/2021/04/UNDER-PRESSURE_Chapter-05_whaling_low-res_web.pdf)

<sup>11</sup> <https://www.sciencedirect.com/science/article/abs/pii/S0308597X17307303?via%3Dihub>

71 scale of takes across Europe noting that there are various motivations for seal killing in the  
72 region, including in the name of preventing seals and other pinnipeds from disturbing,  
73 damaging, injuring and/or killing commercially valuable fish at fish farms, in fishing nets and  
74 in angling rivers. This was the principal reason, for example, for seals being killed under  
75 licence in Scotland until the recent ban came into place. Some European nations permit seal  
76 killing for commercial reasons to sell the meat, blubber or skin. Commercial hunts in  
77 Norway, Greenland and Russia target harp seals (*Pagophilus groenlandicus*), and  
78 Greenland's hunters also target bearded (*Erignathus barbatus*), hooded (*Cystophora cristata*)  
79 and ringed (*Pusa hispida*) seals as well as walruses (*Odobenus rosmarus*).

### 80 **3. Beyond whaling, what human behaviours are affecting whale populations** 81 **and how?**

82 Sadly, many human activities adversely affect marine mammals, and they may be affected by  
83 multiple stressors simultaneously.

84 The multi-author report published by OceanCare in 2021 - 'Under Pressure: the need to  
85 protect whales and dolphins in Europe' - provides a series of brief introductions to the issues  
86 affecting cetaceans. It is available online<sup>12</sup>.

87 Key threats other than intentional takes include:

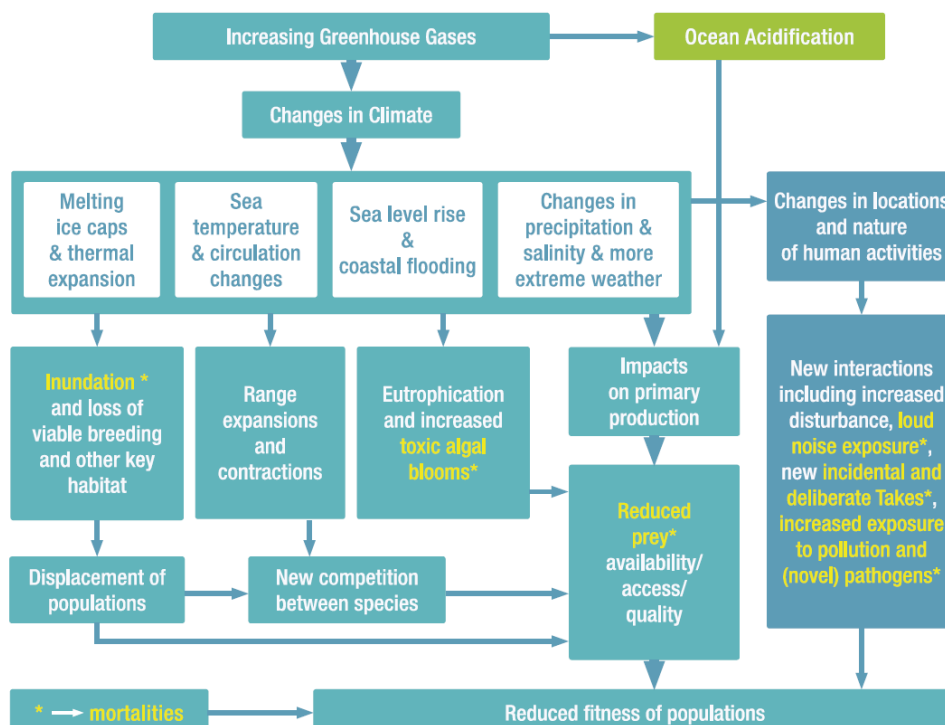
- 88 • Entanglement in fishing operations. This concern is typically focused on from the  
89 perspective of being a conservation concern, but the deaths of ensnared air-breathing  
90 mammals may be protracted, and especially where large whales swim away from the  
91 initial entanglement with fishing netting and/or ropes attached; a very significant  
92 animal welfare concern.
- 93 • Underwater noise. As terrestrial mammals it may be difficult for us to fully  
94 conceptualise how well sound travels in water and how important it is to marine  
95 mammals (for cetaceans hearing is clearly their primary sense). Impacts range from  
96 masking communications, through disturbance of normal behaviours and  
97 displacement, to – in the case of the strongest noise sources - physical impacts.
- 98 • Chemical pollution. Some of the persistent organic pollutants are having an effect on  
99 the health and reproduction of some cetacean populations and pose a threat to their  
100 survival.
- 101 • Marine debris – there is growing evidence that plastic in the seas and oceans is  
102 entering the food chain, including being ingested by marine mammals. In some cases,  
103 the ingested material can cause blockages or internal wounding in the complex  
104 alimentary canals of the animals. The pandemic has clearly caused extra plastics to  
105 enter marine systems<sup>13</sup>.
- 106 • Collisions with vessels can wound or kill marine mammals and this is a particular  
107 problem where fast-moving vessels cross important habitat areas. Slowing vessels  
108 down and routing them around areas of concentration can help to address this (as well  
109 as decreasing carbon emissions).
- 110 • Prey depletion and habitat loss and alteration are among the other factors that can  
111 impact marine mammal populations.

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<sup>12</sup> <https://www.oceancare.org/en/underpressure/>

<sup>13</sup> <https://pubmed.ncbi.nlm.nih.gov/35134431/>

- 112 • Climate change is coming increasingly into view as a major threat to marine mammal  
 113 conservation and not just through the better-known effects of polar ice retreat. Figure 1  
 114 outlines some of the interacting variables and likely outcomes.  
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116  
 117 *Figure 1. Some of the potential interactions between climate change and impacts on marine wildlife.*  
 118 *The yellow text and asterisks indicate where swift population level effects/mortalities may occur*  
 119 *(Simmonds, 2016<sup>14</sup>).*

#### 120 4. How effective are the global protections of marine mammals?

121 The UK has an important international role in many multilateral environmental agreements  
 122 and similar bodies. The International Whaling Commission (IWC) is in the process of  
 123 evolving into a modern future-facing conservation organisation which also pays due heed to  
 124 welfare issues. This evolution from a body that was originally established to make whaling  
 125 practical and sustainable and share out the riches that this activity originally represented, has  
 126 not been easy and is still opposed by some IWC member nations. It is difficult to understand  
 127 this opposition when the conservation needs of so many species and populations are so  
 128 marked. Indeed, I believe that those who oppose the work of the IWC in this context would  
 129 find it very difficult to publicly defend such a position, which is why much of the opposition  
 130 occurs out of sight. Japan's ongoing commercial takes certainly stand in stark contrast to the  
 131 ongoing IWC moratorium on commercial whaling maintained which is widely regarded as an  
 132 important and effective global conservation measure.

133 Nick Gales, the IWC Commissioner for Australia, has recently published his thoughts on the  
 134 IWC in the journal *Marine Policy* in an article entitled 'At 75 years old, the IWC has never  
 135 been more globally relevant'. I recommend consideration of this paper by this inquiry.

<sup>14</sup> Simmonds, M.P. 2016 Impacts and effects of oceanwarming on marine mammals. Chapter 3.15 In: Laffoley, D. & Baxter, J. M. (editors). 2016. *Explaining ocean warming: Causes, scale, effects and consequences*. Gland, Switzerland: IUCN. 456 pp

136 Gales recognises the polarised nature of the debates at the IWC but goes on to say that “As  
137 commercial whaling operations continue to decline, the world’s whales and dolphins face a  
138 dramatic rise in threats resulting from other human activities including fisheries, climate  
139 change and habitat degradation. The IWC has taken meaningful and effective steps to address  
140 these non-whaling threats, and is ideally placed to expand its leadership role and influence  
141 through collaborations with relevant multi-lateral agencies and conventions.” I agree whole-  
142 heartedly with this sentiment. Overall, his review may provide a slightly rosier picture of the  
143 IWC than exists right now given that the IWC is facing significant financial difficulties. How  
144 this situation can be best managed is likely to be hot topic when the Commission meets in  
145 September this year.

146 The IWC has a commitment to the welfare of whales and this has matured into a wider  
147 consideration of the implications of all human activities and not just whaling. One of the  
148 recent products of this has been the development of a whale welfare assessment tool, which  
149 was published in 2020 in the journal *Frontiers in Veterinary Sciences*<sup>15</sup>.

150 The interface between DEFRA and the concerned non-governmental community on IWC  
151 matters has long been a very friendly and productive one with colleagues working together  
152 for many years to find the best ways to help whale protection and conservation across the  
153 world. I hope that this will long continue.

154 CMS (the Convention for the Conservation of Migratory Species) has an important role in the  
155 conservation of marine mammals. It works in a number of ways based on the lists of species  
156 on its two appendices, including via various action plans that are agreed by its parties. One of  
157 its primary functions has been to facilitate the development of regional agreements for  
158 various species and populations and its relevant ‘daughter agreements’ are listed below. Its  
159 important Global Programme of Work for Cetaceans (GPWC) is supported by the  
160 Convention’s Aquatic Mammals Working Group. This identifies key regional initiatives and  
161 as this list will expire in 2024, consideration now needs to be given to its redrafting.

162 ASCOBANS<sup>16</sup> is the Agreement on the Conservation of Small Cetaceans of the Baltic,  
163 North-East Atlantic, Irish and North Seas". It has just celebrated its 30<sup>th</sup> birthday and the UK  
164 and most (but not all) states in the region are parties. Whilst the Agreement is relatively small  
165 and far from wealthy, it ensures that cetacean matters are regularly discussed between  
166 countries, and it influences actions taken at national and regional levels. Arguably, now that  
167 the UK has left the European Union, ASCOBANS has become increasingly important in  
168 processes that are trying to develop and agree conservation actions in the region.

169 There are three other cetacean agreements:

- 170 • ACCOBAMS<sup>17</sup> which seeks to protect the cetaceans of the Mediterranean Sea, Black  
171 Sea and the adjoining Atlantic Area;
- 172 • an MoU for Cetaceans and their Habitats in the Pacific region<sup>18</sup>; and

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<sup>15</sup> <https://www.frontiersin.org/articles/10.3389/fvets.2020.00057/full>

<sup>16</sup> <https://www.ascobans.org/>

<sup>17</sup> <https://accobams.org/>

<sup>18</sup> <https://www.cms.int/pacific-cetaceans/>

- 173 • another one for the manatee and small cetaceans in West Africa<sup>19</sup>.

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175 With respect to other relevant international bodies, CITES, the trade convention, is  
176 important in terms of underpinning the IWC's commercial whaling moratorium and for  
177 its other contributions. There is not space here to consider the other biodiversity-  
178 focused conventions but, of course, it would be highly appropriate to see them  
179 increasingly working closely together. What the world needs is less bureaucracies and  
180 more speedy and effective actions.

## 181 **5. How can the UK better protect marine mammals?**

182 The UK is home to considerable expertise in marine mammal science, including at the Sea  
183 Mammal Research Unit at the University of St Andrews. British experts play a leading role in  
184 some of the key issues affecting marine mammals. For example, in the case of understanding  
185 the effects of chemical pollution and noise, the UK CSIP team have published highly  
186 important contributions<sup>20</sup>. Such efforts need to be maintained so that the relevant science can  
187 properly underpin conservation actions.

188 The focus of marine mammal science has long been on assessing status and considering  
189 sustainability of removals. On a rapidly changing planet more consideration may need to be  
190 given to other forms of assessment, including health studies and also acting in a highly  
191 precautionary way. There has long been an awkward dynamic between waiting for science to  
192 show a clear change or impact and acting to address it. We need to change this paradigm so  
193 that actions both at home and overseas will be appropriately swift.

## 194 **6. What role can the UK Government play to protect and promote the** 195 **conservation of marine mammals internationally?**

196 Most experts view bycatch in active fishing gear as the dominant or most immediate threat to  
197 many cetacean populations and this requires significant action to address it – the IWC's  
198 Bycatch Mitigation Initiative is developing into a very important contributor to this globally  
199 and deserves more support. However, what I believe is now coming increasingly sharply into  
200 view is the widespread and developing threat caused by climate change and this may mean  
201 that population trajectories for recovering or expanding populations may be reversed.  
202 Consider, for example, highly migratory whale populations that have to find certain  
203 conditions at certain times at either end of their migrations in their breeding and feeding  
204 zones and along their migration routes.

205 The threat from climate change to seals should also be noted. For ice-breeding seals the loss  
206 of polar ice is easy to conceptualise as a threat but there are other more indirect consequences  
207 of climate change for shore-breeding animals. For example, what does sea-level rise  
208 combined with increasing storminess mean for the viability of the pupping sites used by  
209 them?

210 In conclusion, I would like to thank the UK for the role that it has played to date in marine  
211 mammal conservation around the globe and encourage more of the same, noting that the  
212 challenges are becoming greater and that there is a growing need for swifter responses. I also  
213 offer the following recommendations:

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<sup>19</sup> <https://www.cms.int/aquatic-mammals/en/node/4122>

<sup>20</sup> <http://ukstrandings.org/csip-publications/>

214 *The UK should continue its high level of engagement with the IWC, including the leadership*  
215 *that it brings to various workstreams, including related to welfare.*

216 *The UK should continue to support the work of CMS and its daughter agreements, including*  
217 *working with the relevant CMS officers to refresh and refocus the CMS marine mammal*  
218 *programme of work, using the latest information, and then help to support it with appropriate*  
219 *expertise and funding.*

220 *In the UK, and beyond, more consideration needs to be given to the effective management of*  
221 *Marine Protected Areas (MPAs) intended to protect marine mammals, including Special*  
222 *Areas of Conservation (SACs) and, globally, similar initiatives<sup>21</sup> need to be adequately*  
223 *underpinned and made effective.*

224 *More generally, the UK should, of course, continue to support important areas of the science*  
225 *that underpins marine mammal conservation and welfare. Care should be taken in the*  
226 *assessment of funding such work to ensure its independence and the appropriateness of its*  
227 *focus.*

228 *Finally, the precautionary principle or approach will need to be applied in many cases,*  
229 *giving marine mammals the benefit of any doubt.*

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<sup>21</sup> Noting here the Global Alliance ‘30 by 30 initiative’ led by the UK (see: <https://www.gov.uk/government/topical-events/global-ocean-alliance-30by30-initiative/about>) and the Important Marine Mammal Areas (IMMAs) initiative of IUCN (see: <https://www.marinemammalhabitat.org/>).