

# Whaling in Europe: An Ongoing Welfare and Conservation Concern

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*“Tens of thousands of cetaceans have been deliberately killed over the last decade in the North Atlantic, in stark contrast to the high level of protection the European Union affords them.”*

Mark P. Simmonds

## Introduction

Early European human settlements by the sea would have welcomed the occasional whale that stranded for its meat and other products, and ancient remains in Scotland suggest this opportunistic use of whales may have occurred as early as the Mesolithic or middle Stone Age (8500-4000 BC) (Simmonds, 2011). It is more difficult to say when organised whale hunting began but organised, and perhaps even commercial, whaling was probably initiated by the Vikings and, whilst the Basque whalers are better known, the Vikings were probably earnestly pursuing whales some centuries before them (Roman, 2005). The value of whales was formally recognised in England in 1324 when the English sovereign claimed all stranded or captured cetaceans and many British monarchs are known to have consumed cetacean flesh, including Henry VIII (Simmonds, 2011).

Early cetacean hunting in Europe would have been opportunistic and basic. Once whales had been sighted, small boats would set off to try and drive them ashore in a fashion similar to the drive hunting still used in the Faroe Islands. More organised, widespread and efficient killing followed and the Basque whalers, for example, removed some 40,000 North Atlantic right whales (*Eubalaena glacialis*) between 1530 and 1610 and the species remains critically endangered to this day (Simmonds, 2011). The efficiency of the Basques may also help explain the extinction of the gray whale (*Eschrichtius robustus*) in the Atlantic long before industrialised whaling arrived.

Whales were valued in 19th century Europe for the oil they provided, which lubricated the machines of the industrial revolution and lit the factories and streets. Industrial whaling – characterised by modern whaling techniques – began in the early 1900s and its products included whalebone, fertiliser, bone meal and meat. London, along with many other European cities, became a major whaling port. Shore-based whaling, with landing stations, overlapped for a while with far-seas whaling, which eventually took over as populations of large whales near to Europe were so diminished that they became uneconomic to hunt. Leading whaling nations, including Norway (which had a proud history of innovation in whaling techniques and exploitation) and the United Kingdom (UK), eventually sent their whaling fleets to the Southern Ocean, where the last large populations of great whales remained (Tønnessen and Johnsen, 1982). Similarly, the German Nazi-regime in the 1930s tried developing its own independent whaling fleet, which joined the hunts in Antarctica in the 1936/37 whaling season (Kersten and Entrup, 2000). Further plans to continue expanding the whaling fleet did not materialise due to the Second World War.

Soon even the remote whale populations dwindled under the onslaught of industrialised whaling. In fact, during the 20th century, more than two million whales were killed in the Southern Hemisphere alone (Clapham and Ivashchenko, 2009). More than half of this total was made up of catches of the two largest species: 350,000 blue whales (*Balaenoptera musculus*) and three quarters of a million fin whales (*Balaenoptera physalus*) – slaughtered for meat, oil, pharmaceuticals, margarine and other commercial products. Other takes included 160,000 humpback whales (*Megaptera novaeangliae*), 380,000 sperm whales (*Physeter macrocephalus*), 180,000 sei whales (*Balaenoptera borealis*), and around 160,000 others. Combined with the Northern Hemisphere takes, this adds up to the greatest removal of animals- in terms of sheer biomass- in the whole history of human hunting.

Concerns about dividing up the remaining 'stocks' between nations led to the inception of the International Convention for the Regulation of Whaling (ICRW) in 1946, which established the International Whaling Commission (IWC). In due course, these same concerns led to the moratorium on commercial whaling<sup>1</sup> agreed by the IWC member nations in 1982. Like many other international treaties, the ICRW allows member nations to take out reservations (or objections) to its decisions and this means nations holding reservations are not bound by what has been agreed. Many whaling nations did this in 1982, including the Russian Federation, but only Norway has made use of, and maintained its reservation through the decades until now. Hence, this Nordic country can say that its whaling is legal, even if it defies the moratorium. Iceland did not make a similar reservation at the time but some years later left the IWC. When it re-joined in 2002, its 'articles of adherence' included a reservation to the moratorium. This was, at first, refused by a majority vote of the IWC member nations but was then accepted on a second attempt at a subsequent meeting,

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<sup>1</sup> The moratorium is implemented by ICRW Schedule paragraph 10(e) (IWC, 2018).

thereby setting a much-discussed precedent<sup>2</sup>. Iceland has also sometimes described its whaling as being for research, something that is allowed by Article VIII of the Convention. Not surprisingly, Iceland's claims that its whaling is legal have been robustly challenged (see for example Saxer, 2003).

## Whaling in Europe in the 21<sup>st</sup> century

Coming right up to date, whaling in Europe is still conducted by several countries and territories (see Table 1) while one of Iceland's two whaling companies announced in 2020 that it would stop whaling for good<sup>3</sup>. The takes by Norway and Iceland of common minke whales (*Balaenoptera acutorostrata*) and, in the case of Iceland, also fin whales (which are still classified as 'vulnerable' by the International Union for Conservation of Nature (IUCN)), are clearly 'commercial.'

Species		Country			
Common name	Scientific name	Faroe Islands	Greenland	Iceland	Norway (mainland and Svalbard)
Atlantic white-sided dolphin	<i>Lagenorhynchus acutus</i>	H	H	P	P
Beluga	<i>Delphinapterus leucas</i>	P~	HQ	P~	P
Blue whale	<i>Balaenoptera musculus</i>	P	P	P	P
Bowhead whale	<i>Balaena mysticetus</i>	P~	HQ	P	P
Common bottlenose dolphin	<i>Tursiops truncatus</i>	H	P~	P	P
Common minke whale	<i>Balaenoptera acutorostrata</i>	P	HQ	HQ	HQ
Fin whale	<i>Balaenoptera physalus</i>	P	HQ	HQ	P
Harbour porpoise	<i>Phocoena phocoena</i>	H	H	P	P
Humpback whale	<i>Megaptera novaeangliae</i>	P	HQ	P	P
Killer whale	<i>Orcinus orca</i>	P	H	P	P
Long-finned pilot whale	<i>Globicephala melas</i>	HR	H	P	P
Narwhal	<i>Monodon monoceros</i>	P~	HQ	P~	P
Northern bottlenose whale	<i>Hyperoodon ampullatus</i>	P	H	P	P
Sei whale	<i>Balaenoptera borealis</i>	P	P	P	P
Sperm whale	<i>Physeter macrocephalus</i>	P	P	P	P
White-beaked dolphin	<i>Lagenorhynchus albirostris</i>	H	H	P	P

H=Hunted without Quota, HQ = Hunted with Quota, HR = No quota but hunting restrictions (seasonal or needs-based), P = Protected, P~ = Protected but not usually present in the area

Table 1: Status of hunting of cetaceans in the Faroe Islands, Greenland, Iceland and Norway (Adapted from NAMMCO website<sup>6</sup>).

<sup>2</sup> Excerpt from ICRW Schedule, Article III. "Iceland's instrument of adherence to the International Convention for the Regulation of Whaling and the Protocol to the Convention deposited on 10 October 2002 states that Iceland 'adheres to the aforesaid Convention and Protocol with a reservation with respect to paragraph 10(e) of the Schedule attached to the Convention'. The instrument further states the following: 'Notwithstanding this, the Government of Iceland will not authorise whaling for commercial purposes by Icelandic vessels before 2006 and, thereafter, will not authorise such whaling while progress is being made in negotiations within the IWC on the RMS. This does not apply, however, in case of the so-called moratorium on whaling for commercial purposes, contained in paragraph 10(e) of the Schedule not being lifted within a reasonable time after the completion of the RMS. Under no circumstances will whaling for commercial purposes be authorised without a sound scientific basis and an effective management and enforcement scheme.' The Governments of Argentina, Australia, Brazil, Chile, Finland, France, Germany, Italy, Mexico, Monaco, the Netherlands, New Zealand, Peru, San Marino, Spain, Sweden, UK and the USA have lodged objections to Iceland's reservation to paragraph 10(e)''.

<sup>3</sup> <https://www.nationalgeographic.com/science/2020/04/commercial-whaling-may-be-over-iceland/>

Whales are usually pursued far out at sea in mechanised vessels using modern techniques (see Figure 1), and meat (the only major product) is sold for profit. Both in Iceland and Norway, local demand for whale meat is low. Almost all of the fin whale catch in Iceland is exported to Japan (AWI *et al.*, 2014). For the rest of the fin whale meat, other uses for whale products are being invented such as dietary supplements<sup>4</sup>. Much of the minke whale catch in Iceland is served in restaurants to tourists, falsely claiming that these are ‘traditional’ local dishes<sup>5</sup>. Amid decreasing demand, minke whale meat in Norway is also served to tourists on cruise ships, in restaurants and at festivals, used for feed at fur farms or is exported to Japan (Altherr *et al.*, 2016). Norway funds a range of projects aimed at boosting whale product sales in the country, such as the development of dietary supplements, alternative drugs or cosmetics from whale oil. Associated research is a by-product and not the primary purpose. Norway and Iceland decide upon their own quotas, they are not approved in any way by the IWC (Table 2).

Whaling (which we define here to include takes of all cetaceans) in Greenland and the Faroe Islands (both independent territories of the Danish Kingdom) is generally viewed in a different light to the hunting conducted in Iceland and Norway. The takes of larger whales by Greenland are treated by the IWC under its category of ‘Aboriginal Subsistence Whaling’ (ASW), which has been allowed to continue whilst the moratorium on commercial whaling has been in place and is intended to meet the ‘needs’ of Indigenous peoples. Greenland also harvests significant numbers of other cetaceans (see section below ‘The case of Greenland’).



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Figure 1: Hauling a dead minke whale onto a Norwegian whaling ship.

<sup>4</sup> [https://icelandmonitor.mbl.is/news/politics\\_and\\_society/2018/04/17/whaling\\_in\\_iceland\\_recommences\\_and\\_byproducts\\_used/](https://icelandmonitor.mbl.is/news/politics_and_society/2018/04/17/whaling_in_iceland_recommences_and_byproducts_used/)

<sup>5</sup> <https://icelandmag.is/article/whaling-not-icelandic-tradition>

<sup>6</sup> <https://nammco.no/topics/hunting/>

		Year										
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Iceland</b>												
<b>Fin whale</b>	<b>Catch</b>	<b>148</b>	<b>0</b>	<b>0</b>	<b>134</b>	<b>137</b>	<b>155</b>	<b>0</b>	<b>0</b>	<b>146</b>	<b>0</b>	<b>0</b>
	Quota	150	154	154	154	154	171	146	175	161	161	161
<b>Common minke whale</b>	<b>Catch</b>	<b>60</b>	<b>58</b>	<b>52</b>	<b>35</b>	<b>24</b>	<b>29</b>	<b>46</b>	<b>17</b>	<b>6</b>	<b>0</b>	<b>0</b>
	Quota	200	216	229	229	229	275	264	269	217	217	217
<b>Norway</b>												
<b>Common minke whale</b>	<b>Catch</b>	<b>468</b>	<b>533</b>	<b>464</b>	<b>594</b>	<b>736</b>	<b>660</b>	<b>591</b>	<b>432</b>	<b>454</b>	<b>429</b>	<b>505</b>
	Quota	1,286	1,286	1,286	1,286	1,286	1,286	880	999	1,278	1,108	1,278

Table 2: Iceland and Norway cetacean catch data and quotas 2010 – 2020<sup>7</sup> (Adapted from: NAMMCO, 2020 and IWC, 2021; Ministry of Trade, Industry and Fisheries website, Norwegian Government<sup>8</sup>; Government of Iceland website<sup>9</sup>).

## Legal frameworks

Chapter 2 provides an overview of the various legal protections afforded to cetaceans, which are a mixture of domestic and international provisions (recently made more complicated by the UK leaving the European Union (EU) and moving away from being bound by the key provisions of EU law). With the IWC being the key internationally-recognised body to regulate the directed takes of whales, disagreement among Members of the IWC remain about whether its mandate covers all cetacean species, or only those listed exclusively within the Schedule of the ICRW. Indeed, the IWC has never attempted to establish quotas for small cetaceans<sup>10</sup>, but this is, arguably, because the pro-whaling nations have campaigned successfully against this. Nonetheless, the IWC, notably via its Scientific Committee, has repeatedly highlighted cases when it believes removals of cetaceans are likely to be unsustainable, including where there are no appropriate population assessments.

There are also other international and regional agreements and treaties that relate to cetaceans in this region, such as the Convention on the Conservation of Migratory Species of Wild Animals (CMS), which prohibits the take of species listed on its Annex I. Its two regional cetacean daughter agreements have similar provisions: the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic Area (ACCOBAMS), specifically forbids the killing of cetaceans; and the Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS), in its conservation and management plan, stresses “Parties shall endeavour to establish (a) the prohibition under national law, of the intentional taking and killing of small cetaceans where such regulations are not already in force”. The EU Habitats Directive<sup>11</sup> affords all cetaceans its highest level of protection. EU Council Regulation (EC) No 338/97, which implements the provisions of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in the EU, is also important and bans the introduction of cetaceans into the Union for primarily commercial purposes and this is complimented by Council Regulation (EEC) No 348/81, which only allows imports of certain products listed in its Annex if they are not to be used for commercial purposes.

Countries with an interest in continuing the intentional killing of cetaceans, including the Faroe Islands, Greenland, Iceland, and Norway, developed an additional regional body – the North Atlantic Marine Mammal Commission or NAMMCO – to underpin their policies. It was established in 1992<sup>12</sup>.

<sup>7</sup> Quotas are not reported to the IWC. Countries may allow unspent quotas to be carried over from one year to the next. Attempts have been made to present the most up to date and accurate data.

<sup>8</sup> <https://www.regjeringen.no/en/topics/food-fisheries-and-agriculture/fishing-and-aquaculture/whaling-and-seal-hunting/principles-on-whaling/id2505089/>

<sup>9</sup> <https://www.government.is/topics/business-and-industry/sustainable-whaling/>

<sup>10</sup> Small cetaceans are all the species not recognised as ‘Great Whales’ (a term used to refer to all the baleen species and the sperm whale) by the IWC.

<sup>11</sup> EU Habitats Directive: Annex IV of Council Directive 92/43/EEC: The Directive also prohibits the keeping, transport and sale or exchange, and offering for sale or exchange, of specimens taken from the wild.

<sup>12</sup> <https://nammco.no/topics/nammco-agreement/>

## Ongoing hunts of small cetaceans

### Faroe Islands

The Faroe Islands are situated some 200 miles to the west of Scotland and hunts of long-finned pilot whales (*Globicephala melas*) and other small cetaceans have been conducted there since at least 1584 (Parsons and Monaghan-Brown, 2017). Nowadays, the animals are still driven in their schools into bays and then to the shore where they are killed in the shallows. These hunts are similar to the ‘drive hunts’ of antiquity conducted here and elsewhere, except that the whales are now driven using motorboats and the hunt is managed with the aid of mobile phones and radios. From 1709 until the present day, over 250,000 pilot whales have been killed with an average of 1,200 per year (Parsons and Monaghan-Brown, 2017). This hunting technique depends on the special social cohesion of the animals concerned. Out in the open ocean, individuals cooperate to protect themselves from predators or other threats and so stick together even when driven into the danger of shallow waters. The intelligence and highly social nature of these animals raises significant welfare concerns in the context of hunting, including drive hunts. As Butterworth *et al.* (2017) put it ‘...despite profound differences in their body form, dolphins like our closest relatives, the great apes, are sentient, highly social mammals that exhibit complex cognitive abilities... possess self-awareness... and demonstrate epimeletic (helping and caregiving) behaviours’. They conclude that this means these animals should be protected against the ‘suffering and distress’ caused by drive hunts.

As well as long-finned pilot whales, dolphins and northern bottlenose whales (*Hyperoodon ampullatus*) are also occasionally taken (see Table 3). Although these takes are less widely recognised, the numbers of animals taken are not insignificant (for example 1,204 Atlantic white-sided dolphins *Lagenorhynchus acutus* have been killed since 2010).

Species		Year										
Common Name	Scientific name	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Long-finned pilot whale	<i>Globicephala melas</i>	1,107	726	713	1,104	48	501	295	1,203	624	682	530
Atlantic white-sided dolphin	<i>Lagenorhynchus acutus</i>	14	0	0	430	0	0	0	488	256	8	8
Northern bottlenose whale	<i>Hyperoodon ampullatus</i>	0	0	2	0	5	2	2	0	5	0	0
Risso’s dolphin	<i>Grampus griseus</i>	21	0	0	0	0	0	0	0	0	0	0
Common bottlenose dolphin	<i>Tursiops truncatus</i>	0	0	0	0	0	0	0	0	0	0	0
Harbour porpoise	<i>Phocoena phocoena</i>	n/a*	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Table 3: Faroe Islands cetacean catch data 2010 – 2020 (Adapted from NAMMCO, 2020).

\* n/a = not applicable

The Faroese people call their small cetacean hunts the ‘grind’, and there is no doubt that these hunts were once an important source of sustenance in the islands and are bound into their traditions and culture<sup>13</sup>.

<sup>13</sup> Faroese writers, Kjörsvik Schei and Moberg (1991), provide this description ‘And a slaughter it is: terrifying and cathartic. When the grind are close to the shore, the animals at the back are harassed, the noise increases brutally, the pressure mounts until the pilot [lead animal] of the grind dashes ahead to be stranded high up on the shore. The others follow blindly and loyally in one rapid black flow. The climax is mercifully swift, eight minutes was all it took to kill 136 whales at the grindadráp [hunt] at Leynar in Streymoy. The men leaping from their boats or waiting on the beach to draw their beautifully worked grindaknivar [whaling knives] across the heavy necks of the grind sever the main blood vessels so that the animals die within seconds.... the agility of the bullfighter is required of the grindamaour, as he stands unprotected up to his waist in bloodied water. No wonder that for a while he turns wild.’

Any modern assessment of the cruelty of the Faroese hunt must start when the drive starts and we can assume that the animals become highly stressed as loud noise is used to drive them into the alien and life threatening situation of shallow water. They are also no doubt aware of what is happening to the other school and family members as they are killed around them.

The bloody and cruel nature of the hunts has raised concerns all over the world. In 1986, the Technical Committee of the IWC, in an effort to reduce the cruelty of the pilot whale hunt, called on the Faroese government to minimise the use of the gaff or whaling hook, restrict the use of the hook from boats, and reduce the number of official 'whaling' bays used in the hunts. The Faroese government enacted these recommendations only in part, but a new blunt-ended hook was developed, although its use is not without welfare concerns (Lonsdale, 2004). Such efforts show a willingness to try to make the hunts more humane.

Whilst the claims of a long-standing tradition are clearly strong, claims that whale meat is 'good for the health of the people' (Kjørsvik Schei and Moberg, 1991) have been challenged by a series of papers that have shown, firstly, remarkably high levels of contaminants in the bodies of the whales and then, more recently, associated human health effects leading to advice to limit consumption (Weihe *et al.*, 1996; Weihe and Joensen, 2008, 2012; Altherr and Lüber, 2012; NAMMCO, 2016).

### **Black Sea and Mediterranean**

The three species of small cetaceans found in the Black Sea (Black Sea bottlenose dolphin, *Tursiops truncatus ponticus*, Black Sea common dolphin, *Delphinus delphis ponticus* and Black Sea harbour porpoise, *Phocoena phocoena relicta*) were remorselessly hunted from 1870 to 1983 when Turkey, the last nation hunting, ceased this activity (Mulvaney, 1996). One of the primary reasons for this hunting was that it was believed the dolphins were competing with fishermen for fish. The scale of takes was huge with reported catches for all three species by the Union of Soviet Socialist Republics (USSR) reaching a maximum of 135,000-140,000 in 1938. The exact number of animals killed in the Black Sea in the 20th century is unknown, but kills by the USSR exceeded 1.5 million and other range states probably killed over 4 million (Birkun *et al.*, 1992). Commercial dolphin hunting was banned in 1966 by the former Soviet Union, Georgia, Bulgaria and Romania, and by Turkey in 1983. Whether there is any ongoing hunting in the Black Sea is now unclear although, in 1996, Mulvaney suggested that some hunting had resumed in Turkey.

There are also occasional anecdotal reports of dolphin killing from elsewhere, including in the Mediterranean. Together with habitat degradation, dolphin hunts in the Adriatic Sea are most likely responsible for dramatic changes in dolphin abundance in this region, with short-beaked common dolphins (*Delphinus delphis*) disappearing from the northern part of the Adriatic. Systematic dolphin culling campaigns took place in particular between the second half of the 18th century and the 1960s, although cases of directed hunts are also recorded afterwards (Bearzi *et al.*, 2004). These incidents may relate to retaliation against animals because of a perceived threat to fish production activities or they may just be wanton acts of violence against animals when their curiosity or desire to bow-ride drew them close to vessels, as seen elsewhere in the world (see Vail, 2016).

### **The case of Greenland**

The people of Greenland hunt a wide range of cetaceans (Table 4). For example, in 2018 they killed a total of 131 large whales (118 common minke whales, 7 fin whales and 6 humpbacks) and, for decades, these takes were made under IWC-approved ASW quotas. In 2012, Denmark- on behalf of its territory, Greenland- sought an increase in the existing ASW quota. In response, many countries raised concerns about the extensive commercial use of whale meat intended for subsistence purposes in Greenland, including the widespread availability of whale meat in Greenland's tourist restaurants and hotels, and Greenland's poor compliance with IWC regulations (WDC, 2012, 2020). A study conducted earlier in 2012 revealed that whale meat is sold in 77% of tourist restaurants in Greenland<sup>14</sup>. Despite these concerns, Denmark/Greenland refused to compromise by reducing the number of whales sought. Consequently,

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<sup>14</sup> <https://awionline.org/sites/default/files/uploads/documents/GreenlandReportAvailabilityofWhaleMeat-072012.pdf>

Greenland's entire request was voted down and, because its previous quota expired in 2012, it had no quota to whale in 2013. Greenland responded by self-allocating quotas and going ahead with its whaling, clearly a violation of international law.

Greenland argues that its whale meat can be sold to anyone, as long as it is sold locally, including to tourists and other visitors to the territory. However, this mixing of commercial takes and aboriginal subsistence takes remains a fraught issue. Harrop (2011), in his review of interactions between humans and cetaceans, commented that 'Greenland operates in a strange limbo of subsistence and commerce and at the one end are true traditions, still maintained although occasionally interrupted, which derive from hunting practices that date back to antiquity and were designed to keep small polar communities alive in harsh conditions.' The line between commercial whaling and subsistence takes is nowhere more finely drawn and this has certainly caused issues at the IWC in recent years.

Another concern in Greenland is the scale of takes of other cetaceans as illustrated in Table 4 and Figure 2. From 2010 to 2020, Greenland took at least 36,332 small cetaceans (NAMMCO, 2020). Not all data for 2020 was available at the time of writing, so this figure is likely an underestimate. The science underpinning any notional sustainability of some takes is lacking as many do not even have quotas established for them (see Table 1). This deserves further independent scrutiny.

Species	Year										
Common Name	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Cetaceans hunted with quotas</b>											
Narwhal	218	296	361	350	415	312	401	426	507	536	281
Beluga	149	151	211	305	271	127	203	196	213	263	189
Common minke whale	196	189	152	181	157	139	163	143	118	171	182
Fin whale	6	5	5	9	12	12	10	8	7	8	3
Humpback whale	9	8	10	8	7	6	5	2	6	4	1
Bowhead whale	3	1	0	0	0	1	0	0	0	0	0
<b>Cetaceans hunted without quotas</b>											
Harbour porpoise	2,093	2,828	2,385	2,646	2,558	2,009	2,380	2,435	2,836	2,569	–
Long-finned pilot whale	338	274	432	316	433	283	195	388	388	285	–
Atlantic white-sided dolphin / White-beaked dolphin	261	237	180	146	137	96	126	103	119	126	–
Killer whale	15	39	44	38	16	23	14	17	21	31	–
Northern bottlenose whale	11	20	14	5	11	3	3	16	0	8	–

*Table 4: Greenland cetacean catch 2010 – 2020 (Adapted from NAMMCO, 2020 and IWC, 2021. Note that data for 2020 for species hunted without quotas was not available at the time of writing).*



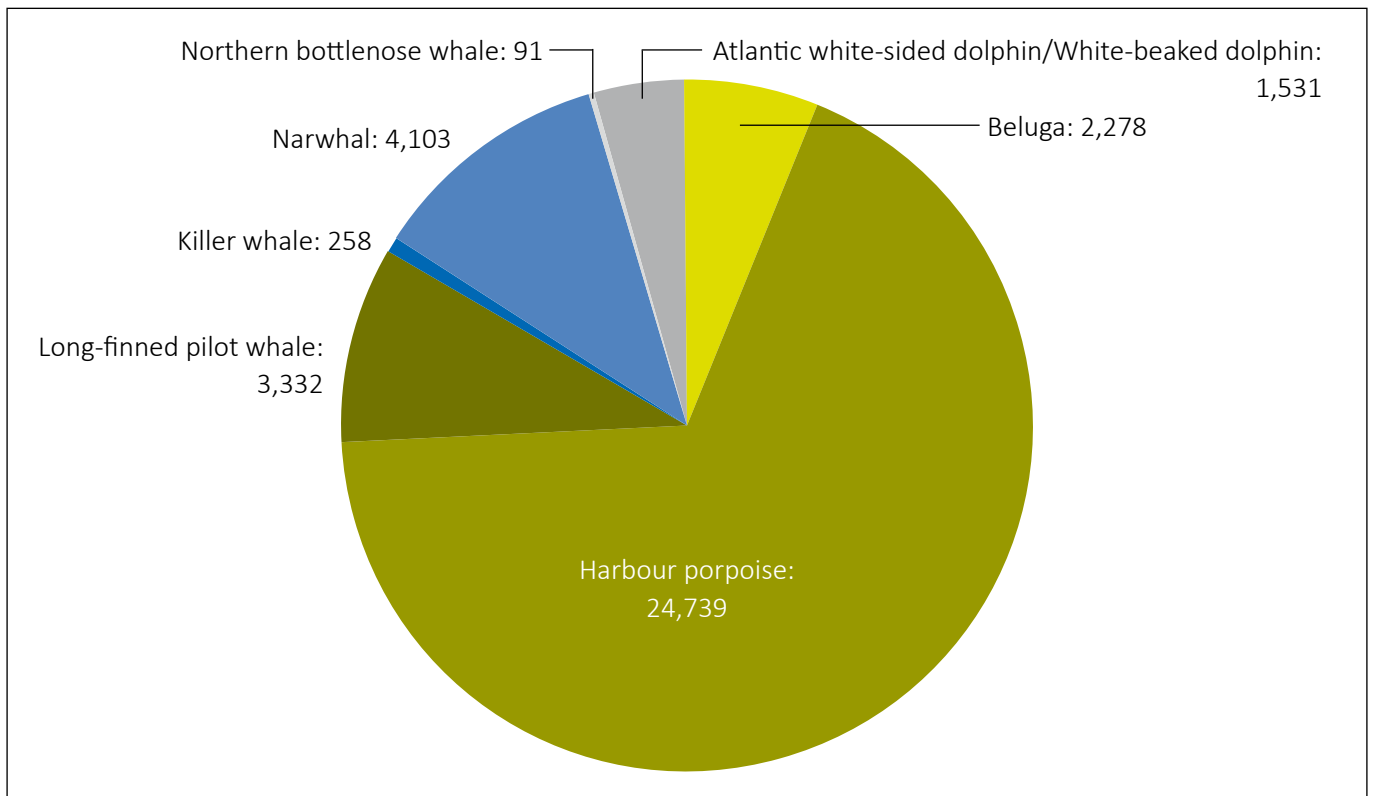


Figure 2: Small cetaceans killed in Greenland 2010-2020 (Total = at least 36,332) (Adapted from NAMMCO, 2020. Note that not all data for 2020 was available at the time of writing).

Clearly some small cetacean species are being heavily targeted by countries hunting in the North Atlantic. Figure 3 shows the takes of long-finned pilot whales in Greenland and the Faroe Islands and Figure 4 illustrates takes of white-sided and white-beaked dolphins in the same territories. Note that in the Faroes all takes are recorded as Atlantic white-sided dolphins but in Greenland there is no differentiation between the two species and numbers are recorded together.

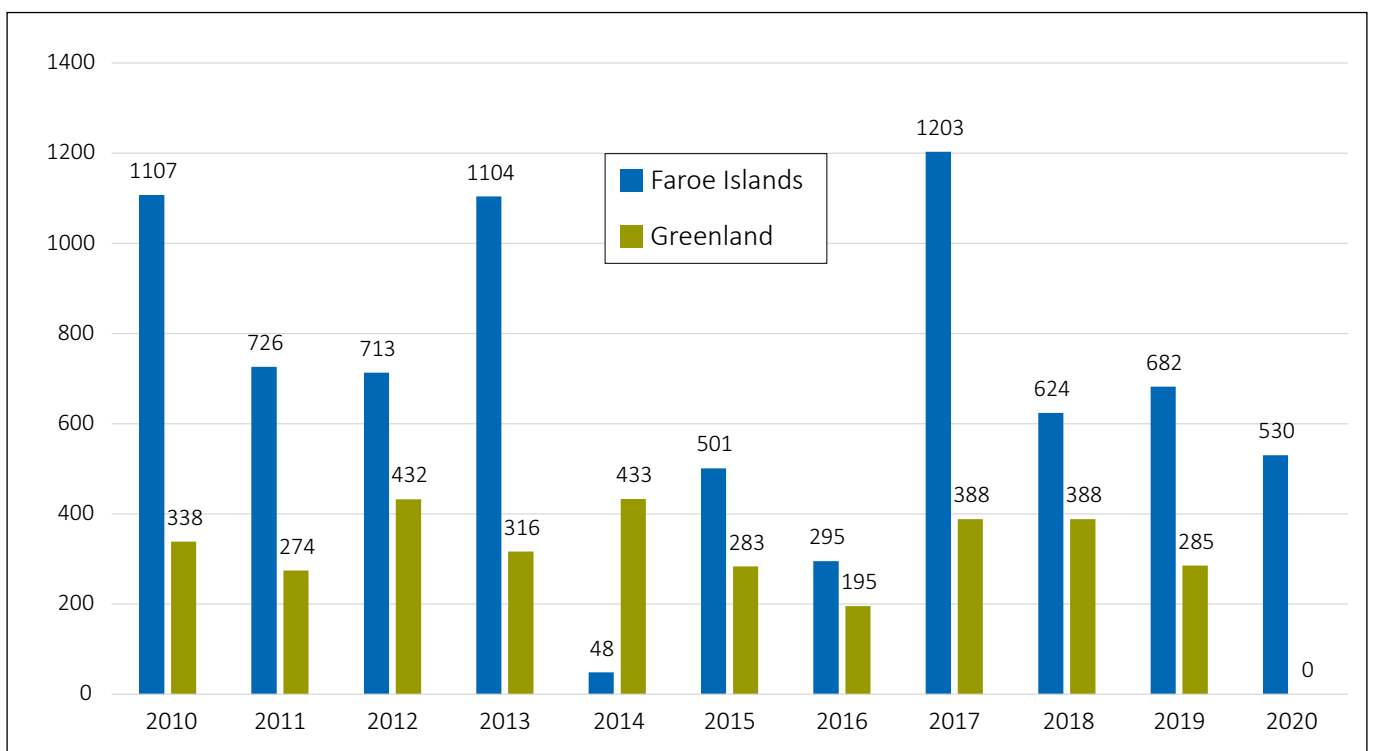


Figure 3: Long-finned pilot whales killed 2010-2020 (Total = 10,865) (Adapted from NAMMCO, 2020. Note that data for Greenland's catch in 2020 was not available at the time of writing).

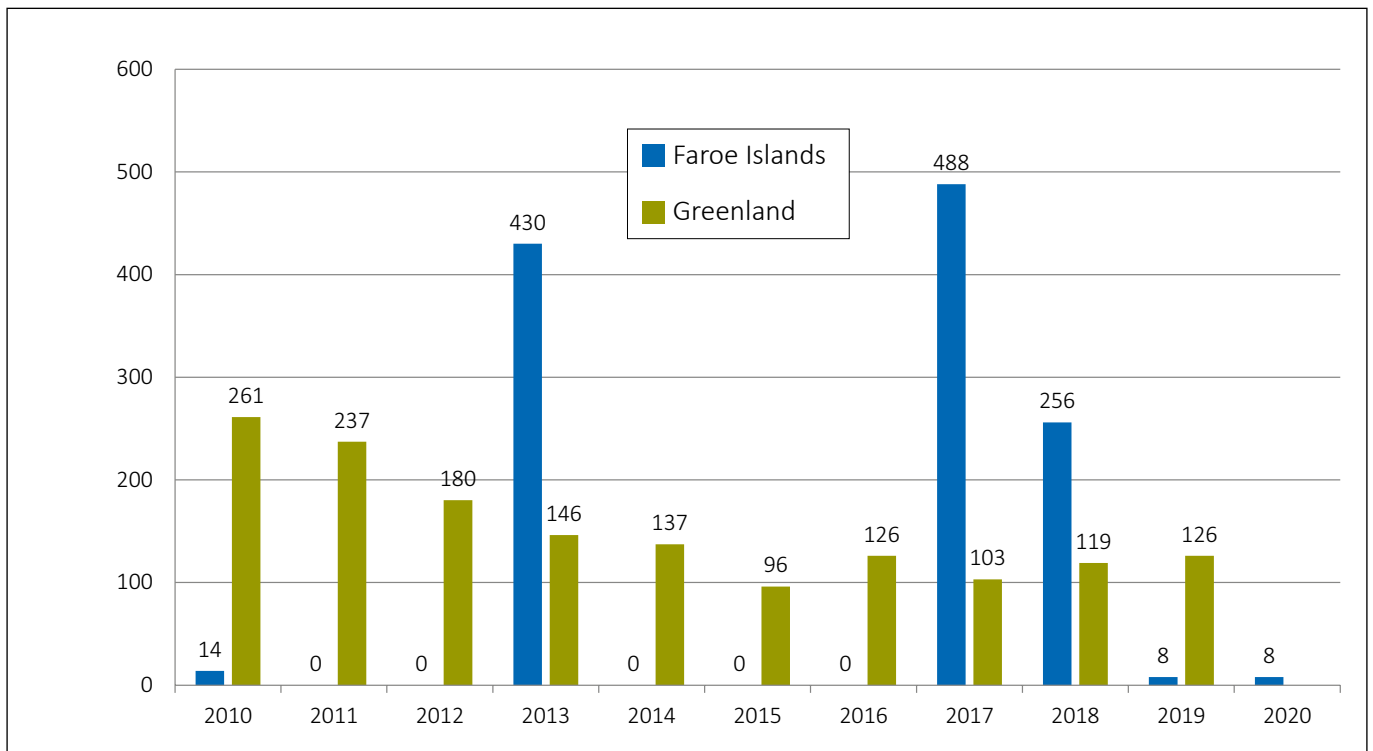


Figure 4: White-beaked and Atlantic white-sided dolphins killed 2010-2020 (Total = at least 2,735) (Adapted from NAMMCO, 2020. Note that data for Greenland's catch in 2020 was not available at the time of writing).

## Ecological impacts of the hunts

The recent history of the organised killing of whales has revolved around the belief that there is a sustainable removal rate that can be safely achieved and many scientists have focused their efforts around calculating such numbers. Similar techniques are used to try to manage fisheries, but what needs to be remembered in the case of cetaceans is that they are long-lived social animals with relatively low reproductive rates. They are inherently unsuitable to attempts at sustainable use and this notion is reinforced by the whole history of whaling.

After the moratorium was put in place, the IWC Scientific Committee went to work on a mechanism to allow a 'safe' approach to the development of whaling quotas. This approach is known as the Revised Management Strategy (the RMS). This has never been agreed and work on it ceased in 2007, when the Commission recognised that it had reached an impasse (IWC, 2020a). One component of the RMS was the Revised Management Procedure (RMP) which allowed quotas to be calculated based on certain information including, but not limited to, population statistics. The IWC agreed to a version of the RMP in 1994 (IWC, 2020b). Norway, in its whaling rhetoric, often indicates that it is using this process in determining its takes, however it appears that they are using a revised version which provides bigger quotas and they are certainly not applying this in the context of the RMS which was how it was intended to be deployed.

As explained elsewhere in this report, whales and other cetaceans now face a range of significant threats other than being hunted and, hence, hunting needs to be viewed against these threats and the notion that quotas (where they have been calculated) are sustainable should at least take other removals and cumulative and synergistic impacts into account.

Equally importantly, and coming increasingly into public and policy focus, is the concept that whales and other cetaceans play an important role in the maintenance of healthy marine ecosystems. Before the advent of industrial whaling: as consumers of fish and invertebrates; as prey to other large-bodied predators; as reservoirs and vertical and horizontal vectors for nutrients; and as detrital sources of energy and habitat in the deep sea, the great whales would have strongly influenced marine ecosystems (Roman *et al.*, 2014). The decline in great whale numbers, estimated to be at least 66% and perhaps as high as 90%, has therefore likely altered the structure and function of the oceans. Whales facilitate the transfer of nutrients by releasing faecal plumes near the surface after feeding at depth and by

moving nutrients from highly productive, high-latitude feeding areas to low-latitude calving areas. Whale carcasses sequester carbon to the deep sea, where they provide habitat and food for many endemic invertebrates and the continued recovery of great whales may help to buffer marine ecosystems from destabilising stresses and could lead to higher rates of productivity in locations where whales aggregate to feed and give birth. A recent estimate puts the lifetime value of the average great whale at more than US\$2 million, based on the animal's ecological services plus economic contributions such as towards tourism and fisheries, arguing that decision makers should reflect on the ecological contributions of cetaceans as a public good (Chami *et al.*, 2019).

## Cetacean culture and other ethical considerations

Over the past two decades, new scientific findings about the social complexity and intelligence of cetacean species, including social learning, knowledge transfer and communication, have helped to develop the scientific concept of “culture” in whales and dolphins, and also other species (Brakes *et al.*, 2019). Cetaceans are now appreciated to have distinct personalities, a strong sense of self, can think about the future, and have some language skills (Simmonds, 2006). Their communities have their own culture and social structures that can only come from a sophisticated understanding of each other (Marino *et al.*, 2007; Marino, 2013; Whitehead *et al.*, 2004; Rendell and Whitehead, 2001). This growing body of science has led to a programme of work by the CMS on conserving animal cultures, including those of cetaceans<sup>15</sup>.

Wildlife has always deserved our respect. Now that we understand that many species possess intelligence and culture, as well as the capacity to suffer, there is an increased moral duty on us to protect their individual liberty and protect them from hunting.

## Conclusion

Between 2010 and 2020:

- Greenland, Iceland and Norway took 7,984 common minke whales;
- Greenland and Iceland took 805 fin whales;
- Greenland and the Faroes took at least 10,865 long-finned pilot whales;
- Greenland and the Faroes took at least 2,735 Atlantic white-sided and white-beaked dolphins;
- Greenland took at least 24,739 harbour porpoises.

In total, Greenland, Iceland, Norway and the Faroes took at least 53,966 cetaceans (common minke whales, fin whales, long-finned pilot whales, Atlantic white-sided, white-beaked and Risso's dolphins, harbour porpoises, narwhals, belugas, bowhead, humpback and northern bottlenose whales and orcas) from 2010 to 2020.

Whales, porpoises and dolphins are not restricted in their distributions by the lines that we draw in the sea to define our territories and a fin whale killed in Iceland would otherwise have been a whale seen elsewhere in Europe on migration or in its breeding grounds; perhaps it would have been enjoyed by whale watchers. Similarly, the minke whale killed on the border of Norwegian-UK waters is no more the property of Norway than it would have been that of the UK had it escaped southwards. So, the actions of those countries that continue to kill whales for profit undermines the conservation efforts and legislative provisions that the EU, the UK and other European countries have in place for these populations.

It is also clear that whaling in its various forms presents significant welfare concerns. At best, a whale may be killed outright (or be made fully insensible) when struck by a harpoon but this is not the situation for all the whales and other cetaceans being hunted. Deliberate killing is also the threat that is easiest resolved through political will, whereas other forms of threats, such as climate change and pollution, are much more difficult to address.

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<sup>15</sup> See UNEP/CMS/COP13/Doc.26.4.1/Rev.1. [https://www.cms.int/sites/default/files/document/cms\\_cop13\\_doc.26.4.1\\_rev.1\\_conservation-implications-of-animal-culture-and-social-complexity\\_e.pdf](https://www.cms.int/sites/default/files/document/cms_cop13_doc.26.4.1_rev.1_conservation-implications-of-animal-culture-and-social-complexity_e.pdf)

## Recommended actions

### Policy

- The IWC moratorium should continue undiminished and there should be sanctions for any violations.
- There should be strict implementation of objectives of relevant Conventions and legislation.
- There should be increasing collaboration and partnerships by the IWC with other Multilateral Environmental Agreements (MEAs) in order to facilitate work to address threats of mutual concern and conservation actions addressing cetaceans.

### Management measures

- There should be strict application of the EU Habitats Directive by all EU Member States.
- There should be strict application of national legislation by non-EU Member States which at least equates to EU legislation.

### Private sector

- International supermarket chains should stop the sale of whale meat.
- Travel agents and cruise ships should educate tourists about the issue of whale meat consumption and also encourage them to avoid purchasing souvenirs made from whale products.

### Science

- IWC Scientific Committee and/or Conservation Committee should undertake a global review about the current status of direct takes of small cetaceans and report back to the Commission (in line with IWC Resolutions 1990-3 and 1991-5).
- The IWC should continue its work on whale welfare and develop an expert panel to facilitate this.

### Public

- Well-managed whale watching industries should be supported in whaling countries.
- Tourists should avoid consumption of whale meat when visiting whaling nations (what may only be a 'mouthful' for one person is magnified into many mouthfuls and many dead whales when lots of visitors partake).

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