

The United Kingdom and the U.S. MMPA Imports Rule¹

February 15, 2022

I. Executive Summary

The United States is a major importer of seafood from the United Kingdom with 49,136 metric tons of fish exported to the U.S. in 2019 valued at \$437.68 million.² The 2020 List of Foreign Fisheries (LOFF) from the National Marine Fisheries Service (NMFS) includes 54 UK export fisheries, 15 of which are listed as exempt. According to Her Majesty's Revenue and Customs, cod, herring, and mackerel were the top fish exports to the U.S. from the UK in 2019 with exports of 396 tons of cod (\$2.89 million), 48 tons of herring (\$468,000), and 173 tons of mackerel (\$983,000).³

Under the U.S. Marine Mammal Protection Act (MMPA), the U.S. government “shall ban” all seafood imports caught with fishing gear that kills or seriously injures marine mammals “in excess of United States standards.”⁴ To implement the requirement, NMFS issued the MMPA Imports Rule,⁵ setting out standards that nations must demonstrate to continue exporting fish to the United States after December 31, 2022. Under the Rule, the United Kingdom (UK) must apply for and receive a “comparability finding” from NMFS, which is essentially a determination that the UK’s bycatch and bycatch program meets U.S. standards.⁶

This report provides a brief assessment of the UK’s export fisheries, statuses of marine mammal populations in its waters, known and expected bycatch issues, and the UK’s legal regime related to fisheries’ bycatch, as applied to the MMPA Imports Rule.

We conclude that the UK has some of the necessary measures in place to meet the requirements of the MMPA Imports Rule. However, existing data show that levels of bycatch are concerning for some marine mammal species in parts of the UK. Bycatch of harbor porpoises and common dolphins, for example, in some areas where export fisheries operate is estimated to exceed provisional thresholds for anthropogenic removal. In many cases, publicly available data are lacking to link bycatch occurrences back to specific fisheries and to fully assess whether individual UK export fisheries meet all MMPA Imports Rule requirements. The UK will need to submit additional information to fill these gaps and demonstrate it meets the MMPA Imports Rule’s requirements.

Some of the measures that the UK has in place may not be comparable to the U.S. regulatory program. For example, while the UK has implemented some measures to mitigate bycatch,

¹ Authors: Dianne DuBois, Sarah Uhlemann, Kate O’Connell, Sarah Dolman, and Zak Smith.

² Kay, Eleanor. Rep. United Kingdom- Fish and Seafood Market Update 2021, March 4, 2021. https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=United%20Kingdom-%20Fish%20and%20Seafood%20Market%20Update%202021_London_United%20King

³ Kay, Eleanor. Rep. United Kingdom- Fish and Seafood Market Update 2021, March 4, 2021. https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=United%20Kingdom-%20Fish%20and%20Seafood%20Market%20Update%202021_London_United%20King

⁴ 16 U.S.C. § 1371(a)(2).

⁵ 81 Fed. Reg. 54,415 (Aug. 16, 2016).

⁶ 50 C.F.R. § 216.24(h)(6).

including the use of Acoustic Deterrent Devices (ADDs) on some vessels, the measures do not apply to most vessels using static nets. Additionally, the UK maintains a bycatch monitoring program and stock assessments, but these programs do not cover all fisheries and marine mammal stocks, making it difficult to fully understand bycatch rates in the UK. Based on our assessment, we strongly urge NMFS to ensure the UK fully demonstrates that it calculates bycatch limits for marine mammals and that bycatch is below the limits set forth in all of its export fisheries.



Figure 1. Map of the United Kingdom. Extracted from Geology.com.⁷

⁷ “United Kingdom Map - England, Scotland, Northern Ireland, Wales.” Accessed October 10, 2021. <https://geology.com/world/united-kingdom-satellite-image.shtml>.

II. The United Kingdom's Export Fisheries

The United Kingdom's (UK) commercial fishing industry contains three main sectors; wild fishing, aquaculture, and fish processing.⁸ Pelagic fish such as herring, sardine, mackerel, and tuna make up the majority of fishing fleet landings.⁹ In 2019, the country exported 496,300 tons of fish and fish products with a value of \$2.65 billion.¹⁰ There were 4,301 active fishing vessels in the UK in 2020, the majority (61 percent) being under 10 meters in length and operating less than six miles from the shore.¹¹ England had the highest number of active vessels (2,027), followed by Scotland (1,714), Wales (258), and Northern Ireland (225).¹²

The 2020 List of Foreign Fisheries (LOFF) includes 54 fisheries that export products from the UK to the U.S., 15 of which are listed as exempt. Among the export fisheries, the most listed target products are mackerel, herrings/sardines, Atlantic cod, and lobster. Data from the UK's Department for Environment, Food, and Rural Affairs (Defra) show that two broad gear types, pots and demersal trawl/seine, account for about 75 percent of the total fishing effort, or Days at Sea (DaS).¹³ The most common gear types used in fisheries that export to the U.S., according to the LOFF, are pots/traps, gillnets and entangling nets, and trawls.

The United States is a major importer of UK fish and fish products. In 2019, it was the second largest importer of seafood from the UK behind France.¹⁴ According to Her Majesty's Revenue and Customs department (H.M. Revenue and Customs), the UK exported 49,136 metric tons of fish to the U.S. with a value of \$437.68 million in 2019.¹⁵ In the same year, NOAA fisheries reported importing 20,843 metric tons of fish products from the UK with a value of \$171.38 million (Table 1). H.M. Revenue and Customs reported cod, herring, and mackerel as the top fish

⁸ Kay, Eleanor. Rep. United Kingdom- Fish and Seafood Market Update 2021, March 4, 2021. https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=United%20Kingdom-%20Fish%20and%20Seafood%20Market%20Update%202021_London_United%20Kingdom_03-03-2021.

⁹ Kay, Eleanor. Rep. United Kingdom- Fish and Seafood Market Update 2021, March 4, 2021. https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=United%20Kingdom-%20Fish%20and%20Seafood%20Market%20Update%202021_London_United%20King

¹⁰ Kay, Eleanor. Rep. United Kingdom- Fish and Seafood Market Update 2021, March 4, 2021. https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=United%20Kingdom-%20Fish%20and%20Seafood%20Market%20Update%202021_London_United%20King

¹¹ "Fishing Data and Insight." Seafish. Accessed February 14, 2022. <https://www.seafish.org/insight-and-research/fishing-data-and-insight/>.

¹² "Fishing Data and Insight." Seafish. Accessed February 14, 2022. <https://www.seafish.org/insight-and-research/fishing-data-and-insight/>.

¹³ Kingston, Al, Len Thomas, and Simon Northridge. Rep. UK Bycatch Monitoring Programme Report for 2019. Sea Mammal Research Unit, May 2021. http://randd.defra.gov.uk/Document.aspx?Document=15193_2019BMPAnnualReport.pdf.

¹⁴ Kay, Eleanor. Rep. United Kingdom- Fish and Seafood Market Update 2021, March 4, 2021. https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=United%20Kingdom-%20Fish%20and%20Seafood%20Market%20Update%202021_London_United%20King

¹⁵ Kay, Eleanor. Rep. United Kingdom- Fish and Seafood Market Update 2021, March 4, 2021. https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=United%20Kingdom-%20Fish%20and%20Seafood%20Market%20Update%202021_London_United%20King

exports to the U.S. from the UK, with exports of 396 tons of cod (\$2.89 million), 48 tons of herring (\$468,000), and 173 tons of mackerel (\$983,000).¹⁶

Table 1. Total fishery products imported to the US from the UK from 2016-2020.¹⁷

Year	Volume (kg)	Value (USD)
2020	14,859,638	103,472,548
2019	20,843,312	171,375,574
2018	17,932,958	161,797,632
2017	18,485,807	160,204,854
2016	13,466,763	115,291,318

III. Marine Mammals

According to Defra, 28 species of cetaceans inhabit UK seas, with the most abundant being harbor porpoise (*Phocoena phocoena*), common bottlenose dolphin (*Tursiops truncatus*), white-beaked dolphin (*Lagenorhynchus albirostris*), fin whale (*Balaenoptera physalus*), and minke whale (*Balaenoptera acutorostrata*).¹⁸ As of 2015, cetaceans with unknown statuses included the short-beaked common dolphin (*Delphinus delphis*), Atlantic white-sided dolphin (*Lagenorhynchus acutus*), Risso’s dolphin (*Grampus griseus*), long-finned pilot whale (*Globicephala melas*), orca (*Orcinus orca*), and sperm whale (*Physeter macrocephalus*), while the remaining 17 species were considered rare or vagrant in the UK.¹⁹ In addition to cetaceans, the UK’s waters are home to about 38 percent of the global population of grey seals (*Halichoerus grypus*) and about 30 percent of the European harbor seal population (*Phoca vitulina*), with populations being most abundant around Scotland.²⁰

The International Union for Conservation of Nature (IUCN) identifies 37 marine mammals whose ranges include a part of UK waters (Table 2). According to the IUCN, the UK’s waters host the critically endangered North Atlantic right whale (*Eubalaena glacialis*), the endangered sei whale (*Balaenoptera borealis*) and blue whale (*Balaenoptera musculus*), as well as four

¹⁶ Kay, Eleanor. Rep. United Kingdom- Fish and Seafood Market Update 2021, March 4, 2021.

https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=United%20Kingdom-%20Fish%20and%20Seafood%20Market%20Update%202021_London_United%20King

¹⁷ US Trade in Fishery Products. NOAA Fisheries. Accessed October 10, 2021. <https://www.fisheries.noaa.gov/foss>.

¹⁸ Marine Strategy Part Three: UK Programme of Measures. Department for Environment Food and Rural Affairs, December 2015.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/486623/marine-strategy-part3-programme-of-measures.pdf.

¹⁹ Marine Strategy Part Three: UK Programme of Measures. Department for Environment Food and Rural Affairs, December 2015.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/486623/marine-strategy-part3-programme-of-measures.pdf.

²⁰ Marine Strategy Part Three: UK Programme of Measures. Department for Environment Food and Rural Affairs, December 2015.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/486623/marine-strategy-part3-programme-of-measures.pdf.

vulnerable and two near threatened species. At the time the species were assessed, population trends were unknown for 28 of the 37 species, indicating a lack of population data.²¹

In addition to being assessed on a global scale, the statuses of many marine mammals within their European range have been assessed according to the IUCN’s regional Red Listing guidelines.²² The scope of these assessments includes the continental shelf seas of Europe and adjacent parts of the open seas. The area assessed aligns with the region covered by the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area (ACCOBAMS) and the Agreement on the Conservation of Small Cetaceans of the Baltic, Northeast Atlantic, Irish and North Seas (ASCOBANS) agreements with the addition of the portion of Norway’s Exclusive Economic Zone south of the Arctic Circle.²³ The assessments reveal that most of the species hold the same status in Europe as they do globally. However, the harbor porpoise (*Phocoena phocoena*), which received a status of Least Concern globally, has been assessed as Vulnerable throughout Europe.²⁴ The harbor porpoise is one of the most frequently bycaught species in UK fisheries along with the common dolphin (*Delphinus delphis*).²⁵

Table 2. International Union for Conservation of Nature (IUCN) Red List categories for marine mammal species found in the UK.²⁶

Common Name	Scientific Name	IUCN Red List Category
North Atlantic right whale	<i>Eubalaena glacialis</i>	Critically Endangered
Sei whale	<i>Balaenoptera borealis</i>	Endangered
Blue whale	<i>Balaenoptera musculus</i>	Endangered
Hooded seal	<i>Cystophora cristata</i>	Vulnerable
Walrus	<i>Odobenus rosmarus</i>	Vulnerable
Fin whale	<i>Balaenoptera physalus</i>	Vulnerable
Sperm whale	<i>Physeter macrocephalus</i>	Vulnerable
Northern bottlenose whale	<i>Hyperoodon ampullatus</i>	Near Threatened
False killer whale	<i>Pseudorca crassidens</i>	Near Threatened
Bearded seal	<i>Erignathus barbatus</i>	Least Concern
Grey seal	<i>Halichoerus grypus</i>	Least Concern
Harbor seal	<i>Phoca vitulina</i>	Least Concern
Harp seal	<i>Pagophilus groenlandicus</i>	Least Concern
Ringed seal	<i>Pusa hispida</i>	Least Concern

²¹ “The IUCN Red List of Threatened Species.” IUCN Red List of Threatened Species. Accessed November 18, 2021. <https://www.iucnredlist.org/>.

²² “The IUCN Red List of Threatened Species.” IUCN Red List of Threatened Species. Accessed November 18, 2021. <https://www.iucnredlist.org/>.

²³ “The IUCN Red List of Threatened Species.” IUCN Red List of Threatened Species. Accessed November 18, 2021. <https://www.iucnredlist.org/>.

²⁴ “The IUCN Red List of Threatened Species.” IUCN Red List of Threatened Species. Accessed November 18, 2021. <https://www.iucnredlist.org/>.

²⁵ Kingston, Al, Len Thomas, and Simon Northridge. Rep. UK Bycatch Monitoring Programme Report for 2019. Sea Mammal Research Unit, May 2021.

http://randd.defra.gov.uk/Document.aspx?Document=15193_2019BMPAnnualReport.pdf.

²⁶ “The IUCN Red List of Threatened Species.” IUCN Red List of Threatened Species. Accessed November 18, 2021. <https://www.iucnredlist.org/>.

Bowhead whale	<i>Balaena mysticetus</i>	Least Concern
Common minke whale	<i>Balaenoptera acutorostrata</i>	Least Concern
Beluga whale	<i>Delphinapterus leucas</i>	Least Concern
Gray whale	<i>Eschrichtius robustus</i>	Least Concern
Long-finned pilot whale	<i>Globicephala melas</i>	Least Concern
Risso's dolphin	<i>Grampus griseus</i>	Least Concern
Pygmy sperm whale	<i>Kogia breviceps</i>	Least Concern
Dwarf sperm whale	<i>Kogia sima</i>	Least Concern
Fraser's dolphin	<i>Lagenodelphis hosei</i>	Least Concern
Atlantic white-sided dolphin	<i>Lagenorhynchus acutus</i>	Least Concern
White-beaked dolphin	<i>Lagenorhynchus albirostris</i>	Least Concern
Humpback whale	<i>Megaptera novaeangliae</i>	Least Concern
Sowerby's beaked whale	<i>Mesoplodon bidens</i>	Least Concern
Blainville's beaked whale	<i>Mesoplodon densirostris</i>	Least Concern
Gervais's beaked whale	<i>Mesoplodon europaeus</i>	Least Concern
True's beaked whale	<i>Mesoplodon mirus</i>	Least Concern
Narwhal	<i>Monodon monoceros</i>	Least Concern
Harbor porpoise	<i>Phocoena phocoena</i>	Least Concern
Striped dolphin	<i>Stenella coeruleoalba</i>	Least Concern
Cuvier's beaked whale	<i>Ziphius cavirostris</i>	Least Concern
Common bottlenose dolphin	<i>Tursiops truncatus</i>	Least Concern
Common dolphin	<i>Delphinus delphis</i>	Least Concern
Orca	<i>Orcinus orca</i>	Data Deficient

The European Union's (EU) Habitats Directive provides further information about the statuses of marine mammals within the UK. While the UK is no longer a member of the EU, biogeographical assessments of species' conservation statuses in the UK's Atlantic waters and Mediterranean Exclusive Economic Zone (EEZ) are available up to 2018.²⁷ These statuses reveal a lack of population data. Population statuses for each species are listed as Favorable, Unknown, Unfavorable-Inadequate, or Unfavorable-Bad. There are 34 marine mammal species listed in the Atlantic bioregion for the UK, and population statuses were listed as unknown for all but two of the species listed.²⁸ Of the two species with known statuses, the common seal was found to have an "unfavorable-inadequate" population status and the grey seal had a favorable population status.²⁹

Table 3. Population statuses of marine mammals in UK waters between 2013 and 2018 according to the EU's Habitats Directive.³⁰

²⁷ "Article 17 Web Tool - Species Assessments at Member State Level." Accessed November 18, 2021. <https://nature-art17.eionet.europa.eu/article17/species/report/>.

²⁸ "Article 17 Web Tool - Species Assessments at Member State Level." Accessed November 18, 2021. <https://nature-art17.eionet.europa.eu/article17/species/report/>.

²⁹ "Article 17 Web Tool - Species Assessments at Member State Level." Accessed November 18, 2021. <https://nature-art17.eionet.europa.eu/article17/species/report/>.

³⁰ "Article 17 Web Tool - Species Assessments at Member State Level." Accessed November 18, 2021. <https://nature-art17.eionet.europa.eu/article17/species/report/>.

Common Name	Scientific Name	Bioregion	Population Status
Minke whale	<i>Balaenoptera acutorostrata</i>	Atlantic	Unknown
Sei whale	<i>Balaenoptera borealis</i>	Atlantic	Unknown
Blue whale	<i>Balaenoptera musculus</i>	Atlantic	Unknown
Fin whale	<i>Balaenoptera physalus</i>	Atlantic	Unknown
Hooded seal	<i>Cystophora cristata</i>	Atlantic	Unknown
Beluga	<i>Delphinapterus leucas</i>	Atlantic	Unknown
Common dolphin	<i>Delphinus delphis</i>	Atlantic	Unknown
Bearded seal	<i>Erignathus barbatus</i>	Atlantic	Unknown
Northern right whale	<i>Eubalaena glacialis</i>	Atlantic	Unknown
Long-finned pilot whale	<i>Globicephala melas</i>	Atlantic	Unknown
Risso's dolphin	<i>Grampus griseus</i>	Atlantic	Unknown
Grey seal	<i>Halichoerus grypus</i>	Atlantic	Favorable
Northern bottlenose whale	<i>Hyperoodon ampullatus</i>	Atlantic	Unknown
Pygmy sperm whale	<i>Kogia breviceps</i>	Atlantic	Unknown
Fraser's dolphin	<i>Lagenodelphis hosei</i>	Atlantic	Unknown
Atlantic white-sided dolphin	<i>Lagenorhynchus acutus</i>	Atlantic	Unknown
White-beaked dolphin	<i>Lagenorhynchus albirostris</i>	Atlantic	Unknown
Humpback whale	<i>Megaptera novaeangliae</i>	Atlantic	Unknown
Sowerby's beaked whale	<i>Mesoplodon bidens</i>	Atlantic	Unknown
Blainville's beaked whale	<i>Mesoplodon densirostris</i>	Atlantic	Unknown
Gervais' beaked whale	<i>Mesoplodon europaeus</i>	Atlantic	Unknown
True's beaked whale	<i>Mesoplodon mirus</i>	Atlantic	Unknown
Narwhal	<i>Monodon monoceros</i>	Atlantic	Unknown
Orca	<i>Orcinus orca</i>	Atlantic	Unknown
Harp seal	<i>Pagophilus groenlandicus</i>	Atlantic	Unknown
Melon-headed whale	<i>Peponocephala electra</i>	Atlantic	Unknown
Common seal	<i>Phoca vitulina</i>	Atlantic	Unfavorable-Inadequate
Harbor porpoise	<i>Phocoena phocoena</i>	Atlantic	Unknown
Sperm whale	<i>Physeter macrocephalus</i>	Atlantic	Unknown
False killer whale	<i>Pseudorca crassidens</i>	Atlantic	Unknown
Ringed seal	<i>Pusa hispida</i>	Atlantic	Unknown
Striped dolphin	<i>Stenella coeruleoalba</i>	Atlantic	Unknown
Bottlenose dolphin	<i>Tursiops truncatus</i>	Atlantic	Unknown
Cuvier's beaked whale	<i>Ziphius cavirostris</i>	Atlantic	Unknown

The Defra's UK Marine Strategy gives some insight into the current statuses of some marine mammal populations in the UK. The Strategy assesses whether certain populations have reached Good Environmental Status (GES), which is defined as "ecologically diverse and dynamic ocean

and seas which are clean, healthy, and productive.”³¹ As of 2018 it was concluded that GES had likely been achieved for coastal bottlenose dolphins and minke whales in the Greater North Sea, but the progress toward GES for cetaceans was “uncertain” for other areas and species.³² GES had also been reached for grey seals in the Greater North Sea and Celtic Seas as of 2018. For harbor seals, there was a significant population increase in West Scotland but their status in other parts of the Celtic Seas was unknown. Additionally, harbor seals in the Greater North Sea had not reached GES.³³

IV. Bycatch in UK Export Fisheries

Incidental mortality, often through entanglement in fishing gear, is one of the leading causes of mortality of marine species in Europe.³⁴ The most recent estimates indicate that over 1,000 cetaceans are killed each year in UK fisheries.³⁵ The cetaceans most commonly bycaught in UK waters are the common dolphin and harbor porpoise, but many other species have been recorded as bycatch in UK fisheries.³⁶ While limited, the UK does have a bycatch monitoring system in place, yet only five export fisheries have any bycatch listed in the LOFF and the remainder have no data provided, “unknown,” or “0” listed for annual average mortality estimates.

According to the UK’s Bycatch Monitoring Program (BMP), static net fisheries, which are considered high risk for cetacean bycatch, recorded 25,000 DaS in 2019.³⁷ These fisheries are highly concentrated in International Council for the Exploration of the Sea (ICES) Subarea 7, which includes parts of the Celtic Sea, with most effort taking place in Division 7d, the Eastern English Channel (Figure 2).³⁸ However, there are also large concentrations of netting effort in Division 7e, the Western English Channel, Division 7f, the Bristol Channel, and smaller amounts

³¹ Marine Strategy Part One: UK Updated Assessment and Good Environmental Status. Department for Environment Food and Rural Affairs, October 2019.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/841233/mar

³² Marine Strategy Part Two: UK Updated Monitoring Programmes. Department for Environment Food and Rural Affairs, March 2021.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/971696/uk-marine-strategy-part-two-m

³³ Marine Strategy Part Two: UK Updated Monitoring Programmes. Department for Environment Food and Rural Affairs, March 2021.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/971696/uk-marine-strategy-part-two-m

³⁴ “The IUCN Red List of Threatened Species.” IUCN Red List of Threatened Species. Accessed November 18, 2021. <https://www.iucnredlist.org/>.

³⁵ Leaper, Russell. An Evaluation of Cetacean Bycatch in UK Fisheries: Problems and Solutions, February 2021. <https://uk.whales.org/wp-content/uploads/sites/6/2021/02/cetacean-bycatch-uk-fisheries-problems-solutions.pdf>.

³⁶ Leaper, Russell. An Evaluation of Cetacean Bycatch in UK Fisheries: Problems and Solutions, February 2021. <https://uk.whales.org/wp-content/uploads/sites/6/2021/02/cetacean-bycatch-uk-fisheries-problems-solutions.pdf>.

³⁷ Kingston, Al, Len Thomas, and Simon Northridge. Rep. UK Bycatch Monitoring Programme Report for 2019. Sea Mammal Research Unit, May 2021.

http://randd.defra.gov.uk/Document.aspx?Document=15193_2019BMPAnnualReport.pdf.

³⁸ Kingston, Al, Len Thomas, and Simon Northridge. Rep. UK Bycatch Monitoring Programme Report for 2019. Sea Mammal Research Unit, May 2021.

http://randd.defra.gov.uk/Document.aspx?Document=15193_2019BMPAnnualReport.pdf.

in Division 4ac, the Northern and Southern North Sea, as well as Divisions 7g-k, the Southwestern Approaches.³⁹

Reports of bycatch from the International Whaling Commission (IWC) and the BMP provide insight into recent bycatch in some areas, but they do not cover all fisheries or regions. The BMP reported 215 protected species bycatch monitoring days in 2019, which was acknowledged to be low due to staffing issues.⁴⁰ In 2018, there were 339 protected species bycatch monitoring days, including 172 days on static net vessels, 129 days on pelagic trawler vessels, 25 days on longline fishery vessels, and 13 days on ring net fishery vessels.⁴¹ Despite these efforts, observer coverage of UK fishing vessels is less than 1 percent which is not sufficient for understanding the extent of bycatch in UK fisheries.⁴² Data on the UK from the IWC is also limited, as bycatch is primarily reported from strandings and does not have associated location data.

As described below, existing data show concerning levels of marine mammal bycatch in the UK. Data from observers show high rates of bycatch in the Celtic Sea, with common dolphin and harbor porpoise bycatch likely above 1 percent of population abundance, the ASCOBANS intermediate precautionary goal for anthropogenic removal from bycatch, as well as harbor porpoise bycatch above ASCOBANS thresholds in Subarea 27.7.⁴³ It is difficult to determine which fisheries have the most bycatch given the limitations of the BMP's observer data. It is expected that there may be high rates of bycatch in Southeast England from Essex to Sussex and Northwest of Shetland given the overlap of gillnet fisheries and harbor porpoise distribution, but observer coverage is limited in these areas and historically fishers have not been required to report bycatch.⁴⁴ Aside from England, recent estimates of cetacean bycatch in creel fisheries in Scotland show that bycatch may be high enough to cause population-level impacts to humpback whales and minke whales locally⁴⁵. Additionally, harbor porpoise bycatch in the North Sea and

³⁹ Kingston, Al, Len Thomas, and Simon Northridge. Rep. UK Bycatch Monitoring Programme Report for 2019. Sea Mammal Research Unit, May 2021.

http://randd.defra.gov.uk/Document.aspx?Document=15193_2019BMPAnnualReport.pdf.

⁴⁰ Kingston, Al, Len Thomas, and Simon Northridge. Rep. UK Bycatch Monitoring Programme Report for 2019. Sea Mammal Research Unit, May 2021.

http://randd.defra.gov.uk/Document.aspx?Document=15193_2019BMPAnnualReport.pdf.

⁴¹ Couperus, A.S., 2019. Annual report on the implementation of Council Regulation (EC) No 812/2004–2018 (No. 19.021). Centre for Fishery Research (CVO).

⁴² “Gearing up to Eliminating Cross-Taxa Bycatch in UK Fisheries A Wildlife and Countryside Link (WCL) Technical Briefing,” <https://www.wcl.org.uk/docs/Gearing%20up%20to%20eliminating%20cross-taxa%20bycatch%20in%20UK%20fisheries%20FINAL.pdf>.

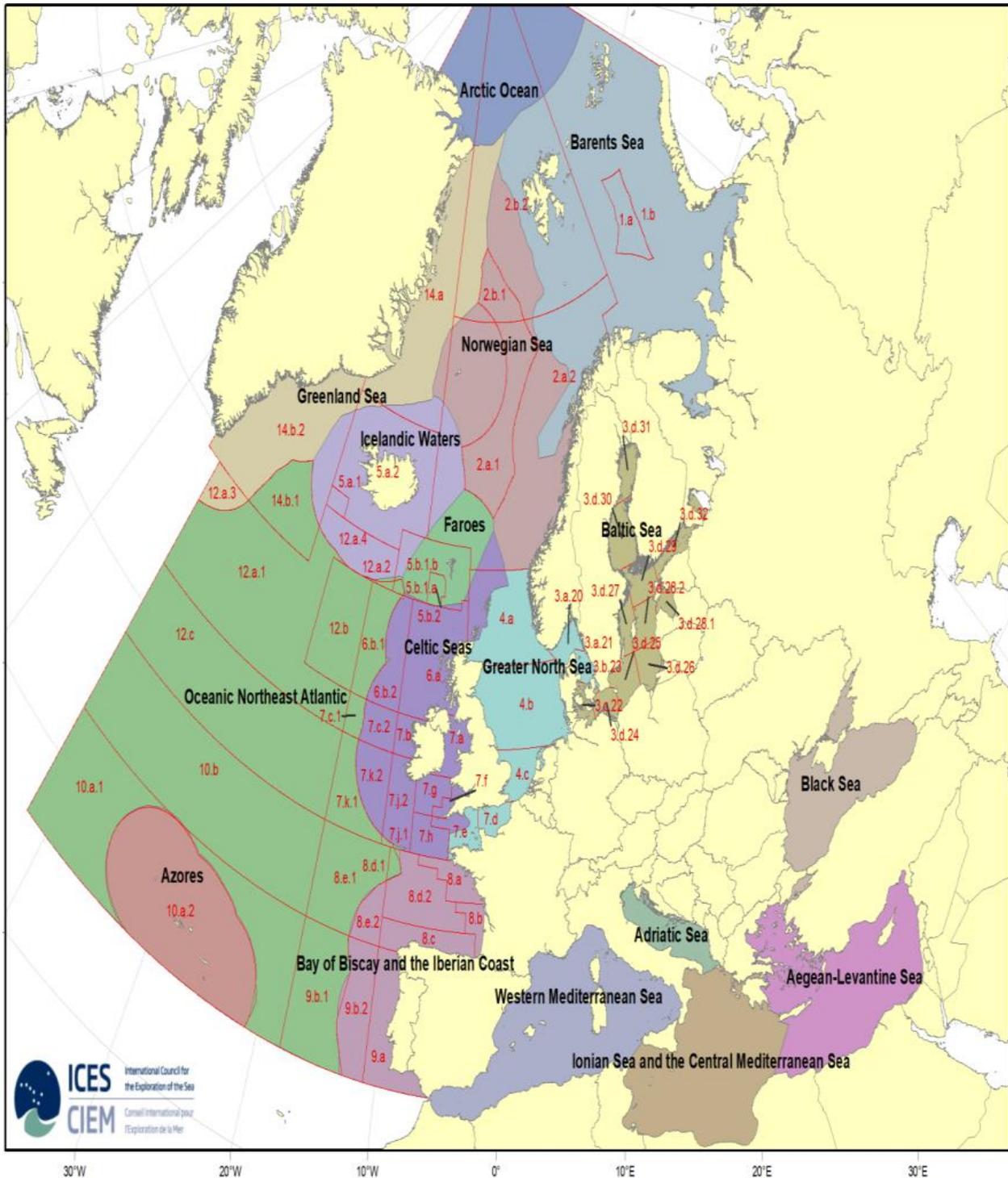
⁴³ Marine Strategy Part One: UK Updated Assessment and Good Environmental Status. Department for Environment Food and Rural Affairs, October 2019.

<https://www.ices.dk/sites/pub/Publication%20Reports/Advice>

⁴⁴ Calderan, Susannah, and Russell Leaper. "Review of harbour porpoise Bycatch in UK Waters and Recommendations for Management." Nairobi: United Nations Environment Programme (2019).

⁴⁵ MacLennan, E., Hartny-Mills, L., Read, F.L., Dolman, S.J., Philp, A., Dearing, K.E., Jarvis, D. and Brownlow, A.C. Scottish Entanglement Alliance (SEA) - understanding the scale and impacts of marine animal entanglement in the Scottish creel fishery. NatureScot Research Report 1268.

throughout the eastern North Atlantic, short-beaked common dolphin bycatch in pelagic trawls for sea bass and tuna in the Atlantic, and short-beaked common and striped dolphin bycatch in the Atlantic have all been flagged as conservation concerns.⁴⁶



⁴⁶ Dolman, Sarah, Sarah Baulch, Peter GH Evans, Fiona Read, and Fabian Ritter. "Towards an EU action plan on cetacean bycatch." *Marine Policy* 72 (2016): 67-75.

Figure 2. Map of International Council for the Exploration of the Sea (ICES) Ecoregions and Divisions in the Northeast Atlantic.⁴⁷

A. Common Dolphin Bycatch in the UK

Common dolphins are one of the most frequently bycaught species in UK waters. Existing bycatch data show concerning common dolphin bycatch trends in parts of the UK. We were unable to find thresholds for anthropogenic removal of common dolphin stocks set by the UK. However, ICES has calculated Potential Biological Removal (PBR) for common dolphins in the Northeast Atlantic.⁴⁸ Additionally, OSPAR, a convention of which the UK is a member, has calculated Provisional Threshold values using an approach based on PBR with a management objective modified to align with European conservation objectives rather than those of the US (mPBR).⁴⁹ Based on these thresholds, data suggest that common dolphin bycatch in some UK waters is likely contributing to population-level impacts.

A report from ICES summarizing bycatch data in the Northeast Atlantic (including the Celtic Seas, Bay of Biscay, Iberian Coast, and the western English Channel) shows that common dolphin bycatch in the region may have been over PBR (4,927 dolphins) from 2016-2018.⁵⁰ The point estimate for bycatch based on observer data was just below PBR, but the point estimate based on stranding data exceeded it.⁵¹ In the Celtic Seas, the highest rate of bycatch (0.032 dolphins/DaS) was recorded in nets in ICES area 27.7.g.⁵² Accordingly, this area was the only area in the Celtic Seas region with any monitored DaS.⁵³ In the Celtic Seas and Channel, the highest bycatch from 2016-2018 occurred in otter bottom trawls (276 CI95% = 151-427) and gillnets (192 CI95% = 85-299) targeting demersal species.⁵⁴

More recently, a 2021 report from the ICES Workshop on Estimation of Mortality of Marine Mammals Due to Bycatch (WKMOMA) found that common dolphin bycatch in the assessment

⁴⁷ Kingston, Al, Len Thomas, and Simon Northridge. Rep. UK Bycatch Monitoring Programme Report for 2019. Sea Mammal Research Unit, May 2021.

http://randd.defra.gov.uk/Document.aspx?Document=15193_2019BMPAnnualReport.pdf

⁴⁸ “Bycatch of Protected and Potentially Vulnerable Marine Vertebrates – Review of National Reports under Council Regulation (EC) No. 812/2004 and Other Information.” ICES Advice, September 22, 2020.

<https://www.ices.dk/sites/pub/Publication%20Reports/Advice>

⁴⁹ ICES. 2021. Workshop on estimation of MOrtality of Marine MAMmals due to Bycatch (WKMOMA). ICES Scientific Reports. 3:106. 95 pp. <https://doi.org/10.17895/ices.pub.9257>

⁵⁰ “Bycatch of Protected and Potentially Vulnerable Marine Vertebrates – Review of National Reports under Council Regulation (EC) No. 812/2004 and Other Information.” ICES Advice, September 22, 2020.

<https://www.ices.dk/sites/pub/Publication%20Reports/Advice>

⁵¹ “Bycatch of Protected and Potentially Vulnerable Marine Vertebrates – Review of National Reports under Council Regulation (EC) No. 812/2004 and Other Information.” ICES Advice, September 22, 2020.

<https://www.ices.dk/sites/pub/Publication%20Reports/Advice>

⁵² “Bycatch of Protected and Potentially Vulnerable Marine Vertebrates – Review of National Reports under Council Regulation (EC) No. 812/2004 and Other Information.” ICES Advice, September 22, 2020.

<https://www.ices.dk/sites/pub/Publication%20Reports/Advice>

⁵³ “Bycatch of Protected and Potentially Vulnerable Marine Vertebrates – Review of National Reports under Council Regulation (EC) No. 812/2004 and Other Information.” ICES Advice, September 22, 2020.

<https://www.ices.dk/sites/pub/Publication%20Reports/Advice>

⁵⁴ ICES. 2021. Workshop on estimation of MOrtality of Marine MAMmals due to Bycatch (WKMOMA). ICES Scientific Reports. 3:106. 95 pp. <https://doi.org/10.17895/ices.pub.9257>

area (OSPAR areas II, III, and IV, the Greater North Sea, Celtic Seas, and Bay of Biscay and Iberian Coast) exceeded mPBR.⁵⁵ The mPBR for the assessment area was 985 individuals, and WKMOMA determined that mortality for common dolphins in the assessment area based on bycatch rates from 2015-2020 was estimated to be 6,405 individuals (95% CI 3051-9414), far exceeding mPBR and with no overlap between the confidence interval and mPBR.⁵⁶ WKMOMA found that the highest rates of bycatch events from 2015-2020 occurred in midwater pair trawls and midwater otter trawls in ICES area 27.8, the Bay of Biscay, and in midwater pair trawls in ICES area 27.6, which includes the northwest coast of Scotland and North Ireland.⁵⁷ In ICES Subarea 27.7, which also includes some UK waters, the highest frequencies of bycatch events occurred in trammel nets, demersal otter trawls, and otter twin trawls.⁵⁸ In the Greater North Sea, common dolphin bycatch continues to be an issue in the UK's netting fleet with an estimate of 278 dolphins bycaught (95% CI 165–662) in 2019, including 36 dolphins (95% CI = 23–109) in the Eastern Channel (ICES area 7.d) and 19 dolphins (95% CI = 13–39) in southern North Sea (ICES area 4.c).⁵⁹

In addition to ICES, data from the IWC gives some insight into bycatch in the UK. The IWC reported mortality of 14 common dolphins in UK waters in 2020 due to bycatch in the North Atlantic.⁶⁰ There have been similar numbers reported in previous years with bycatch of 13 common dolphins in the UK in 2019, 10 in 2018, 12 in 2017, and 7 in 2016.⁶¹ Locations and gear types are unknown for all of the IWC-listed incidents making it difficult to trace back to a specific fishery.

The BMP reported observed bycatch of 6 common dolphins in 2019, including 4 animals in the Western English Channel (ICES Division 7e) and 2 in the Bristol Channel (Division 7f).⁶² All of these incidents occurred in gillnet, tangle net, and trammel net fisheries.⁶³ The BMP also recorded bycatch of 2 common dolphins in 2018 caught in the Celtic Sea (Division 7g) in static net fisheries using trammel nets for ray and hake gillnets.⁶⁴ Based on the bycatch numbers from observer data, Defra estimated that annual common dolphin bycatch in the UK in 2019 was 278

⁵⁵ ICES. 2021. Workshop on estimation of MOrtality of Marine MAMmals due to Bycatch (WKMOMA). ICES Scientific Reports. 3:106. 95 pp. <https://doi.org/10.17895/ices.pub.9257>

⁵⁶ ICES. 2021. Workshop on estimation of MOrtality of Marine MAMmals due to Bycatch (WKMOMA). ICES Scientific Reports. 3:106. 95 pp. <https://doi.org/10.17895/ices.pub.9257>

⁵⁷ ICES. 2021. Workshop on estimation of MOrtality of Marine MAMmals due to Bycatch (WKMOMA). ICES Scientific Reports. 3:106. 95 pp. <https://doi.org/10.17895/ices.pub.9257>

⁵⁸ ICES. 2021. Workshop on estimation of MOrtality of Marine MAMmals due to Bycatch (WKMOMA). ICES Scientific Reports. 3:106. 95 pp. <https://doi.org/10.17895/ices.pub.9257>

⁵⁹ ICES. 2021. Workshop on estimation of MOrtality of Marine MAMmals due to Bycatch (WKMOMA). ICES Scientific Reports. 3:106. 95 pp. <https://doi.org/10.17895/ices.pub.9257>

⁶⁰ "IWC Database Portal." Accessed November 18, 2021. <https://portal.iwc.int/>.

⁶¹ "IWC Database Portal." Accessed November 18, 2021. <https://portal.iwc.int/>.

⁶² Kingston, Al, Len Thomas, and Simon Northridge. Rep. UK Bycatch Monitoring Programme Report for 2019. Sea Mammal Research Unit, May 2021.

http://randd.defra.gov.uk/Document.aspx?Document=15193_2019BMPAnnualReport.pdf.

⁶³ Kingston, Al, Len Thomas, and Simon Northridge. Rep. UK Bycatch Monitoring Programme Report for 2019. Sea Mammal Research Unit, May 2021.

http://randd.defra.gov.uk/Document.aspx?Document=15193_2019BMPAnnualReport.pdf.

⁶⁴ Couperus, A.S., 2019. Annual report on the implementation of Council Regulation (EC) No 812/2004–2018 (No. 19.021). Centre for Fishery Research (CVO).

animals (95% CL range 165-662), and in 2018 was about 248 animals (95% CL range 171-452).⁶⁵

Most UK fisheries listed in the LOFF do not have details on the area of operation provided beyond the Northeast Atlantic (Major Fishing Area 27) of the Food and Agriculture Organization (FAO).⁶⁶ This makes it difficult to determine which fisheries may be contributing to bycatch in specific regions. In 2018, however, the BMP report states that the two common dolphins were taken in static net fisheries that use trammel nets for ray and hake gillnets.⁶⁷ The report does not extrapolate an overall bycatch estimate from those incidents. There is one fishery listed in the LOFF with hake listed as one of its target species which uses gillnets and entangling nets. With 704 vessels, the average annual mortality estimate of common dolphin bycatch in this fishery is listed in the LOFF as 105.4 animals.

In 2019, the BMP report provides few details on which fisheries were involved in the reported bycatch. The BMP estimates an annual bycatch of 66 common dolphins (and up to 111 animals) in its hake gillnet métier;⁶⁸ however, it's unclear if this is the same hake gillnet fishery listed in the LOFF. The LOFF includes one gillnet and entangling net fishery listed as operating in the divisions where common dolphin bycatch was reported (Divisions 7e, 7f, and 7g). The target species for this fishery are anchovies nei (*Engraulis* spp), European pilchard(=Sardine) (*Sardina pilchardus*), and herrings/sardines nei (*Clupeidae*). The BMP estimates bycatch of 0 common dolphins annually (but up to 91 animals) in its gill light flatfish métier;⁶⁹ but it is unclear if it is the same flatfish fishery listed in the LOFF. In the LOFF, the sections for marine mammal interactions and annual average mortality estimates for this fishery are blank. However, it is possible that the reported common dolphin bycatch occurred in other export fisheries that do not have specific divisions provided under the area of operation.

B. Harbor Porpoise Bycatch in the UK

Similar to the common dolphin, harbor porpoises are also one of the most frequently bycaught species in UK waters. Tangle/trammel nets have been identified as the highest bycatch risk to harbor porpoises, catching as much as three times the amount of harbor porpoises as other gillnets.⁷⁰ The IWC reported bycatch of 2 harbor porpoises in UK waters in 2020, 3 in 2019, 2 in

⁶⁵ Kingston, Al, Len Thomas, and Simon Northridge. Rep. UK Bycatch Monitoring Programme Report for 2019. Sea Mammal Research Unit, May 2021.

http://randd.defra.gov.uk/Document.aspx?Document=15193_2019BMPAnnualReport.pdf.

⁶⁶ FAO Major Fishing Areas. Food and Agriculture Organization of the United Nations. Accessed November 18, 2021. <https://www.fao.org/fishery/area/Area27/en>.

⁶⁷ Couperus, A.S., 2019. Annual report on the implementation of Council Regulation (EC) No 812/2004–2018 (No. 19.021). Centre for Fishery Research (CVO).

⁶⁸ Kingston, Al, Len Thomas, and Simon Northridge. Rep. UK Bycatch Monitoring Programme Report for 2019. Sea Mammal Research Unit, May 2021.

http://randd.defra.gov.uk/Document.aspx?Document=15193_2019BMPAnnualReport.pdf.

⁶⁹ Kingston, Al, Len Thomas, and Simon Northridge. Rep. UK Bycatch Monitoring Programme Report for 2019. Sea Mammal Research Unit, May 2021.

http://randd.defra.gov.uk/Document.aspx?Document=15193_2019BMPAnnualReport.pdf.

⁷⁰ Northridge, S., Kingston, A., and Thomas, L. 2018. Annual report on the implementation of Council Regulation (EC) No 812/2004 during 2017. <http://randd.defra.gov>.

2018, 7 in 2017, and 4 in 2016.⁷¹ Again, locations and gear types are unknown for all of the IWC-listed incidents making it difficult to trace these incidents back to a specific fishery.

The BMP reported bycatch of one harbor porpoise in 2019 by observers covering gillnet, trammel net, and tangle net fisheries.⁷² The individual was caught in the Southwest Approaches (Division 7g) but a fishery was not named.⁷³ In the previous year, 2018, bycatch of two harbor porpoises was reported.⁷⁴ One of these incidents occurred in the Celtic Sea (Division 7g) while the second harbor porpoise was caught in the southern North Sea (Division 4c).⁷⁵ Based on observed bycatch numbers for 2019, the BMP estimated bycatch of 833 (95% CL range 502-1560) harbor porpoises, assuming compliance with Acoustic Deterrent Device (ADD) requirements, and 1,061 (95% CL range 599-1922) assuming no use of ADDs.⁷⁶ In 2018, the estimated bycatch of harbor porpoises in all UK gillnet fisheries assuming all boats above 12m used ADDs in required areas was between 660 and 1464 porpoises (best estimate 948 CV=0.108). The estimated bycatch of the species assuming no use of ADDs was between 845 and 1633 porpoises (best estimate 1150; CV=0.087).⁷⁷ In 2016, harbor porpoise bycatch in Subarea 27.7, where most fisheries in the LOFF operate, was estimated to be between 620 and 1391 individuals.⁷⁸

These estimations of harbor porpoise bycatch in the UK are concerning. Based on available data, ASCOBANS states that the annual rate of harbor porpoise bycatch throughout the ASCOBANS Agreement Area is above 1.7 percent of population abundance, a short-term limit for total anthropogenic removal under ASCOBANS intended to be one step toward the goal of zero bycatch. In 2019, ICES found that the estimated bycatch mortality of the harbor porpoise subpopulation in the Celtic Sea assessment unit ranged between 2.12 and 5.57 percent the population estimate there.⁷⁹ In 2016, the harbor porpoise bycatch estimate for Subarea 27.7 was lower than in 2018 and 2019 for this area, though ranges overlap, and was still above the

uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=19943&FromSearch=Y&Publisher=1&SearchText=ME6004&SortString=ProjectCode&SortOrder=Asc&Paging=10#Description

⁷¹ “IWC Database Portal.” Accessed November 18, 2021. <https://portal.iwc.int/>.

⁷² Kingston, Al, Len Thomas, and Simon Northridge. Rep. UK Bycatch Monitoring Programme Report for 2019. Sea Mammal Research Unit, May 2021.

http://randd.defra.gov.uk/Document.aspx?Document=15193_2019BMPAnnualReport.pdf.

⁷³ Kingston, Al, Len Thomas, and Simon Northridge. Rep. UK Bycatch Monitoring Programme Report for 2019. Sea Mammal Research Unit, May 2021.

http://randd.defra.gov.uk/Document.aspx?Document=15193_2019BMPAnnualReport.pdf.

⁷⁴ Couperus, A.S., 2019. Annual report on the implementation of Council Regulation (EC) No 812/2004–2018 (No. 19.021). Centre for Fishery Research (CVO).

⁷⁵ Couperus, A.S., 2019. Annual report on the implementation of Council Regulation (EC) No 812/2004–2018 (No. 19.021). Centre for Fishery Research (CVO).

⁷⁶ Kingston, Al, Len Thomas, and Simon Northridge. Rep. UK Bycatch Monitoring Programme Report for 2019. Sea Mammal Research Unit, May 2021.

http://randd.defra.gov.uk/Document.aspx?Document=15193_2019BMPAnnualReport.pdf.

⁷⁷ Couperus, A.S., 2019. Annual report on the implementation of Council Regulation (EC) No 812/2004–2018 (No. 19.021). Centre for Fishery Research (CVO).

⁷⁸ “Bycatch of Protected and Potentially Vulnerable Marine Vertebrates – Review of National Reports under Council Regulation (EC) No. 812/2004 and Other Information.” ICES Advice, September 11, 2018.

<https://www.ices.dk/sites/pub/Publication%20Reports/Advice>

⁷⁹ Leaper, Russell. An Evaluation of Cetacean Bycatch in UK Fisheries: Problems and Solutions, February 2021. <https://uk.whales.org/wp-content/uploads/sites/6/2021/02/cetacean-bycatch-uk-fisheries-problems-solutions.pdf>.

ASCOBANS intermediate precautionary objective of 1 percent for anthropogenic removal through bycatch, another step toward the ultimate goal of zero bycatch.⁸⁰ Bycatch of the species in the subarea was determined by ICES to represent about 1.1-2.4 percent of the harbor porpoise population there.⁸¹ Several fisheries in the LOFF operate in Subarea 27.7 and the Celtic Sea, indicating that the U.S. is importing seafood from fisheries in a region with bycatch that is over acceptable limits as defined by ASCOBANS.

The ICES WKMOMA 2021 report also shows concerning levels of harbor porpoise bycatch. In West Scotland and Ireland, bycatch in 2020, which was estimated to be 305 (134-686) harbor porpoises, exceeded the mPBR of 78 individuals.⁸² Two different bycatch estimates were calculated for the North Sea, 5929 (95% CI 3176-10,739) and 1627 (95% CI 922-3,325). Both estimates are over the Greater North Sea Removals Limit Algorithm (RLA)⁸³ of 1622 individuals. In the Irish Seas, the 2020 bycatch estimate of 12 (6-27) porpoises was below the mPBR of 34 individuals.⁸⁴ Most of the bycatch was from set gillnets and drift nets, followed by trammel nets, and then demersal otter trawls and otter twin trawls. In ICES subarea 27.7 the highest rates of harbor porpoise bycatch were found in large vessels using set gillnets and trammel nets.⁸⁵ In subarea 27.4, the North Sea, harbor porpoise bycatch rates were high in small vessels using set gillnets.⁸⁶

In addition to concerning levels of bycatch in areas where observer data exists, additional bycatch of harbor porpoises is likely in areas with less observer coverage. Based on the overlap of harbor porpoise distribution and gillnet effort, one report anticipated that high risk areas for bycatch of the species would include northwest Shetland, southeast England from Essex to Sussex, and southwest England including the Celtic Shelf and Southwest Approaches.⁸⁷ Observer data is limited in these areas.⁸⁸

More information is needed to trace bycatch of harbor porpoises back to specific fisheries listed in the LOFF. The BMP report for 2018 states that the harbor porpoise bycatch that year occurred

⁸⁰ “Bycatch of Protected and Potentially Vulnerable Marine Vertebrates – Review of National Reports under Council Regulation (EC) No. 812/2004 and Other Information.” ICES Advice, September 11, 2018. <https://www.ices.dk/sites/pub/Publication%20Reports/Advice>

⁸¹ “Bycatch of Protected and Potentially Vulnerable Marine Vertebrates – Review of National Reports under Council Regulation (EC) No. 812/2004 and Other Information.” ICES Advice, September 11, 2018. <https://www.ices.dk/sites/pub/Publication%20Reports/Advice>

⁸² ICES. 2021. Workshop on estimation of MOrtality of Marine MAMmals due to Bycatch (WKMOMA). ICES Scientific Reports. 3:106. 95 pp. <https://doi.org/10.17895/ices.pub.9257>

⁸³ Most Provisional Threshold values for the harbor porpoise were determined using the same mPBR approach used with the common dolphin. However, in OSPAR Region II (the Greater North Sea) thresholds were determined using a Removals Limit Algorithm (RLA) Approach.

⁸⁴ ICES. 2021. Workshop on estimation of MOrtality of Marine MAMmals due to Bycatch (WKMOMA). ICES Scientific Reports. 3:106. 95 pp. <https://doi.org/10.17895/ices.pub.9257>

⁸⁵ ICES. 2021. Workshop on estimation of MOrtality of Marine MAMmals due to Bycatch (WKMOMA). ICES Scientific Reports. 3:106. 95 pp. <https://doi.org/10.17895/ices.pub.9257>

⁸⁶ ICES. 2021. Workshop on estimation of MOrtality of Marine MAMmals due to Bycatch (WKMOMA). ICES Scientific Reports. 3:106. 95 pp. <https://doi.org/10.17895/ices.pub.9257>

⁸⁷ Leaper, Russell. An Evaluation of Cetacean Bycatch in UK Fisheries: Problems and Solutions, February 2021. <https://uk.whales.org/wp-content/uploads/sites/6/2021/02/cetacean-bycatch-uk-fisheries-problems-solutions.pdf>

⁸⁸ Leaper, Russell. An Evaluation of Cetacean Bycatch in UK Fisheries: Problems and Solutions, February 2021. <https://uk.whales.org/wp-content/uploads/sites/6/2021/02/cetacean-bycatch-uk-fisheries-problems-solutions.pdf>

in static net fisheries that use trammel nets for ray and hake gillnets.⁸⁹ The only fishery in the LOFF that includes hake as one of its target species has an average annual mortality estimate of 732.4 harbor porpoises. The harbor porpoise bycatch reported by the UK in 2019 could have occurred in several fisheries listed in the LOFF since many only report broad areas of operation. There is only one fishery listed in the LOFF as operating in the divisions where harbor porpoise bycatch was observed that uses gillnets and entangling nets. It is the same fishery operating in the divisions where common dolphin bycatch has been reported which targets anchovies nei (*Engraulis* spp), European pilchard(=Sardine) (*Sardina pilchardus*), and herrings/sardines nei (*Clupeidae*). As stated above, the sections for marine mammal interactions and annual average mortality estimates for this fishery in the LOFF are blank.

C. Seal Bycatch in the UK

The BMP reported bycatch of nine grey seals in 2019 in gillnet, trammel nets, and tangle net fisheries in the Western English Channel (Division 7e) and the Bristol Channel (Division 7f).⁹⁰ These observations led to an estimate of 488 seals caught in the UK that year.⁹¹ Bycatch of ten grey seals was reported in the previous year with four caught in Subarea 7 in static nets and the remaining six caught in the central North Sea sand eel midwater trawl fishery.⁹² Bycatch of seals in the Celtic and Greater North Seas Ecoregions combined is estimated to be about 1.51-2.85 percent of population abundance.⁹³

Like the common dolphin and harbor porpoise, levels of grey seal bycatch were assessed in the 2021 ICES WKMOMA report.⁹⁴ The Provisional Threshold for grey seals determined by the OSPAR Marine Mammal Expert Group was based on PBR and was not modified to European management objectives.⁹⁵ PBR was only listed for one of the four assessment units, while the other three were listed as “To Be Confirmed” and “Not provided.”⁹⁶ WKMOMA estimated that 108 individuals (95% CI 89-129) are bycaught each year in the Ireland assessment unit and that 2,229 (95% CI 1598-3199) individuals are bycaught each year in the Great North Sea assessment

⁸⁹ Couperus, A.S., 2019. Annual report on the implementation of Council Regulation (EC) No 812/2004–2018 (No. 19.021). Centre for Fishery Research (CVO).

⁹⁰ Kingston, Al, Len Thomas, and Simon Northridge. Rep. UK Bycatch Monitoring Programme Report for 2019. Sea Mammal Research Unit, May 2021.

http://randd.defra.gov.uk/Document.aspx?Document=15193_2019BMPAnnualReport.pdf.

⁹¹ Kingston, Al, Len Thomas, and Simon Northridge. Rep. UK Bycatch Monitoring Programme Report for 2019. Sea Mammal Research Unit, May 2021.

http://randd.defra.gov.uk/Document.aspx?Document=15193_2019BMPAnnualReport.pdf.

⁹² Couperus, A.S., 2019. Annual report on the implementation of Council Regulation (EC) No 812/2004–2018 (No. 19.021). Centre for Fishery Research (CVO).

⁹³ Kingston, Al, Len Thomas, and Simon Northridge. Rep. UK Bycatch Monitoring Programme Report for 2019. Sea Mammal Research Unit, May 2021.

http://randd.defra.gov.uk/Document.aspx?Document=15193_2019BMPAnnualReport.pdf.

⁹⁴ ICES. 2021. Workshop on estimation of MOrtality of Marine MAMmals due to Bycatch (WKMOMA). ICES Scientific Reports. 3:106. 95 pp. <https://doi.org/10.17895/ices.pub.9257>

⁹⁵ ICES. 2021. Workshop on estimation of MOrtality of Marine MAMmals due to Bycatch (WKMOMA). ICES Scientific Reports. 3:106. 95 pp. <https://doi.org/10.17895/ices.pub.9257>

⁹⁶ ICES. 2021. Workshop on estimation of MOrtality of Marine MAMmals due to Bycatch (WKMOMA). ICES Scientific Reports. 3:106. 95 pp. <https://doi.org/10.17895/ices.pub.9257>

unit, where PBR is listed as 7,617 individuals.⁹⁷ Some of the highest rates of bycatch events were documented in subarea 27.7 in small vessels using set gillnets (GNS) where PBR was “To Be Confirmed.”⁹⁸

D. Whale Bycatch in the UK

While the BMP has not reported observations of whale bycatch in recent years, there is concerning evidence of whale bycatch in the UK. The IWC has recorded several recent incidents of whale bycatch including two minke whales in 2020, three humpback whales in 2019, one minke whale in 2018, a northern bottlenose whale in 2017, and another minke whale in 2016.⁹⁹ Associated fishery data are not available for all these incidents, but when gear type was known it was listed as pot/trap.¹⁰⁰ Location data are not available for most of the IWC incidents. However, the two incidents with associated location data, the minke whales caught in 2016 and 2018, were reported in Scotland.

Several whale species have been reported entangled in creel lines associated with the Scottish creel fishery including the minke whale, humpback whale, pilot whale, the IUCN Vulnerable fin whale, and the IUCN Endangered sei whale.¹⁰¹ A 2021 study found that of the 159 commercially active Scottish creel fishers interviewed, almost half had experienced at least one entanglement of a marine animal between 2008-2018.¹⁰² Additionally, the study found that bycatch in these fisheries may be high enough to cause population-level impacts to humpback whales.¹⁰³ Recent estimates of whale bycatch in the Scottish creel fishery suggest that numbers may be even higher than previous estimates with around five humpback whales and 30 minke whales entangled each year.¹⁰⁴ On the west coast of Scotland, the amount of minke whale mortality from entanglement in fishing gear is estimated to be about 2.2 percent of population abundance.¹⁰⁵ Data on minke whale bycatch may be biased low because minke whales typically die at the entanglement location and do not strand, as opposed to bigger whales like humpbacks that are strong enough to

⁹⁷ ICES. 2021. Workshop on estimation of MOrtality of Marine MAMmals due to Bycatch (WKMOMA). ICES Scientific Reports. 3:106. 95 pp. <https://doi.org/10.17895/ices.pub.9257>

⁹⁸ ICES. 2021. Workshop on estimation of MOrtality of Marine MAMmals due to Bycatch (WKMOMA). ICES Scientific Reports. 3:106. 95 pp. <https://doi.org/10.17895/ices.pub.9257>

⁹⁹ “IWC Database Portal.” Accessed November 18, 2021. <https://portal.iwc.int/>.

¹⁰⁰ “IWC Database Portal.” Accessed November 18, 2021. <https://portal.iwc.int/>.

¹⁰¹ Leaper, Russell. An Evaluation of Cetacean Bycatch in UK Fisheries: Problems and Solutions, February 2021. <https://uk.whales.org/wp-content/uploads/sites/6/2021/02/cetacean-bycatch-uk-fisheries-problems-solutions.pdf>.

¹⁰² MacLennan, E., Hartny-Mills, L., Read, F.L., Dolman, S.J., Philp, A., Dearing, K.E., Jarvis, D. and Brownlow, A.C. Scottish Entanglement Alliance (SEA) - understanding the scale and impacts of marine animal entanglement in the Scottish creel fishery. NatureScot Research Report 1268.

¹⁰³ MacLennan, E., Hartny-Mills, L., Read, F.L., Dolman, S.J., Philp, A., Dearing, K.E., Jarvis, D. and Brownlow, A.C. Scottish Entanglement Alliance (SEA) - understanding the scale and impacts of marine animal entanglement in the Scottish creel fishery. NatureScot Research Report 1268.

¹⁰⁴ MacLennan, E., Leaper, R., Brownlow, A., Calderan, S., Jarvis, D., Hartny-Mills, L. and Ryan, C. 2020. Estimates of humpback and minke whale entanglements in Scotland. Paper SC/68b/HIM01 presented to IWC Scientific Committee 16pp.

¹⁰⁵ ¹⁰⁵ MacLennan, E., Leaper, R., Brownlow, A., Calderan, S., Jarvis, D., Hartny-Mills, L. and Ryan, C. 2020. Estimates of humpback and minke whale entanglements in Scotland. Paper SC/68b/HIM01 presented to IWC Scientific Committee 16pp.

break gear off and swim with it.¹⁰⁶ In general, entanglements in Scottish creel fisheries are already underreported, with less than 5 percent of incidents being reported to the Scottish national strandings network (SMASS).¹⁰⁷ It is unclear in the LOFF whether Scottish creel fisheries export to the United States.

Large whale entanglement occurs in other parts of the UK aside from Scotland, but there are currently no estimates quantifying it.¹⁰⁸ Although the distribution of large whales in UK waters makes it likely that bycatch is highest in Scotland, there have been incidents recorded that are indicative of whale bycatch issues in other regions. In September of 2020, for example, three minke whale entanglements were reported on the east coast of England.¹⁰⁹ Exact location data do not exist as they were discovered as strandings or carcasses floating at sea, but one of these was observed within a few hours of death, indicating that the entanglement occurred nearby.¹¹⁰

E. Reported Strandings in the UK

Stranding data can provide some insight into patterns of marine mammal bycatch, including which species are impacted and how many individuals are caught each year. Many 2019 strandings in the UK were reported by scientists to the IWC. These included 455 harbor porpoises, 252 common dolphins, 80 unidentified dolphins, 66 unidentified small cetaceans, 29 common minke whales, 14 long-finned pilot whales, 12 Risso's dolphins, 10 common bottlenose dolphins, 10 striped dolphins, 8 sperm whales, 7 white-beaked dolphins, 5 humpback whales, 5 unidentified large baleen whales, 4 Sowerby's beaked whales, 3 fin whales, 2 Atlantic white-sided dolphins, 2 orcas, 1 Cuvier's beaked whale, 1 northern bottlenose whale, 1 pygmy sperm whale, and 1 sei whale.¹¹¹

A stranded orca was reported to the IWC in 2016 and was confirmed to have drowned from entanglement.¹¹² The individual was a member of the only known resident population of orcas in the UK and was believed to have been entangled in creel lines.¹¹³ While it was reported in Scotland, there is no way to tie this incident back to a fishery due to it being discovered as a stranding.¹¹⁴ Recent reports from the BMP do not include any observed orca bycatch in UK fisheries and the average annual mortality estimate for all orcas expected to interact with UK

¹⁰⁶ Leaper, Russell. An Evaluation of Cetacean Bycatch in UK Fisheries: Problems and Solutions, February 2021. <https://uk.whales.org/wp-content/uploads/sites/6/2021/02/cetacean-bycatch-uk-fisheries-problems-solutions.pdf>.

¹⁰⁷ MacLennan, E., Hartny-Mills, L., Read, F.L., Dolman, S.J., Philp, A., Dearing, K.E., Jarvis, D. and Brownlow, A.C. Scottish Entanglement Alliance (SEA) - understanding the scale and impacts of marine animal entanglement in the Scottish creel fishery. NatureScot Research Report 1268.

¹⁰⁸ Leaper, Russell. An Evaluation of Cetacean Bycatch in UK Fisheries: Problems and Solutions, February 2021. <https://uk.whales.org/wp-content/uploads/sites/6/2021/02/cetacean-bycatch-uk-fisheries-problems-solutions.pdf>.

¹⁰⁹ Leaper, Russell. An Evaluation of Cetacean Bycatch in UK Fisheries: Problems and Solutions, February 2021. <https://uk.whales.org/wp-content/uploads/sites/6/2021/02/cetacean-bycatch-uk-fisheries-problems-solutions.pdf>.

¹¹⁰ Leaper, Russell. An Evaluation of Cetacean Bycatch in UK Fisheries: Problems and Solutions, February 2021. <https://uk.whales.org/wp-content/uploads/sites/6/2021/02/cetacean-bycatch-uk-fisheries-problems-solutions.pdf>.

¹¹¹ "IWC Database Portal." Accessed November 18, 2021. <https://portal.iwc.int/>.

¹¹² "IWC Database Portal." Accessed November 18, 2021. <https://portal.iwc.int/>.

¹¹³ "Killer Whale Drowned After Getting Stuck in Fishing Line." BBC, January 2016. <https://www.bbc.com/news/uk-scotland-glasgow-west-35263692>

¹¹⁴ "IWC Database Portal." Accessed November 18, 2021. <https://portal.iwc.int/>.

fisheries in the LOFF is listed as “unknown.” The orca is listed as Data Deficient by the IUCN, and its status in European waters is unknown (Tables 1 and 2).

Using stranding data to estimate rates of entanglement in fishing gear likely leads to estimates that are biased low because not all the marine mammals that die from interactions with fishing gear end up washing ashore.¹¹⁵ Another challenge with stranding data is that in many cases it is not possible to determine where entanglements occurred and which fisheries were involved. Regardless, this data suggests that many more species may be impacted by bycatch in fishing gear than have been observed through the BMP.

V. The UK’s Policies on Bycatch and Marine Mammal Protection

UK fisheries’ policy and governance are overseen by Defra.¹¹⁶ Fisheries management and nature conservation are devolved and managed by various fisheries’ administrations. These include the Marine Management Organisation (MMO) in England, Marine Scotland in Scotland, the Department of Agriculture, Environment, and Rural Affairs (DAERA) in Northern Ireland, and the Welsh Government in Wales.¹¹⁷ The UK is in a period of transition with its exit from the European Union (EU), making it difficult, in some cases, to determine what fisheries’ policy and management will look like moving forward. The UK and its extensive waters are now outside of EU law.¹¹⁸

The UK has committed to addressing marine mammal bycatch in its Fisheries Act 2020 and through its international agreements. The UK is a member of ASCOBANS, a regional agreement for the protection of small cetaceans that has a target of reducing cetacean bycatch to zero.¹¹⁹ The IWC, of which the UK is also a member, endorsed a Bycatch Mitigation Initiative (BMI) in 2016 aiming to increase assessment of bycatch to determine priority areas and improve mitigation measures globally.¹²⁰ Finally, the UK is also a member of ICES which has a Working Group on Bycatch of Protected Species (WGBYC) that gathers and assesses bycatch information to improve monitoring and mitigation methodology.¹²¹

Despite commitments to addressing marine mammal bycatch, meaningful reductions in bycatch through policy and regulation are lacking in the UK. Under EU Regulation 812/2004 the UK was required to implement the use of ADDs in some gillnet fisheries in specific areas which

¹¹⁵ “Dwarf Sperm Whale (Kogia Sima): Western North Atlantic Stock.” Accessed November 18, 2021. https://media.fisheries.noaa.gov/dam-migration/2019_sars_atlantic_dwarfspermwhale.pdf.

¹¹⁶ “Who’s Who in UK Fisheries Management.” All Party Parliamentary Fisheries Group, November 16, 2021. <https://www.fisheriesappg.org/blog/2020/8/11/whos-who-in-uk-fisheries-management>.

¹¹⁷ “Who’s Who in UK Fisheries Management.” All Party Parliamentary Fisheries Group, November 16, 2021. <https://www.fisheriesappg.org/blog/2020/8/11/whos-who-in-uk-fisheries-management>.

¹¹⁸ Ripol, Andrea, and Mirta Zupan. “The Regulatory Framework for Whales, Dolphins and Porpoises in European Waters.” UNDER PRESSURE (2021): 28.

¹¹⁹ Leaper, Russell. An Evaluation of Cetacean Bycatch in UK Fisheries: Problems and Solutions, February 2021. <https://uk.whales.org/wp-content/uploads/sites/6/2021/02/cetacean-bycatch-uk-fisheries-problems-solutions.pdf> ; <https://www.wcl.org.uk/making-the-future-of-fisheries-bycatch-free.asp>

¹²⁰ “Bycatch.” International Whaling Commission. Accessed November 18, 2021. <https://iwc.int/bycatch>.

¹²¹ “Working Group on Bycatch of Protected Species.” ICES. Accessed November 18, 2021. <https://www.ices.dk/community/groups/Pages/WGBYC.aspx>.

ultimately only reduced bycatch in the UK by less than 15 percent.¹²² This small reduction is the only tangible bycatch mitigation action the UK has taken but the regulation no longer applies to the UK.¹²³ As described below, the UK provides marine mammals with protection from intentional killing under the Wildlife and Countryside Act 1981 and several seal conservation provisions exist. Since November 2021, it has been a requirement for all UK fishers to report all instances of marine mammal bycatch, ‘in order to continue to export fisheries products to the United States’.¹²⁴ Defra produced the UK Marine Wildlife Bycatch Mitigation Initiative in August 2022.¹²⁵ Whilst the Initiative is welcome, it is not specific, targeted, does not include timelines or commitments, with language that is weaker than the Fisheries Act requirement in places.

A. Fisheries Act 2020 and the UK Cetacean Bycatch Plan of Action

The Fisheries Act 2020 commits the UK to addressing bycatch but does not contain requirements or steps for doing so.¹²⁶ It applies to the UK EEZ as defined during the EU-UK Brexit negotiations.¹²⁷ The Act contains an “ecosystem objective” which is to have fish and aquaculture activities managed through an ecosystem-based approach to minimize or reverse their negative impacts on marine ecosystems.¹²⁸ The ecosystem objective also aims to minimize and, where possible, eliminate incidental catches of sensitive species. Bycatch is listed as one of the eight fisheries objectives in the Act.¹²⁹ However, the bycatch objective references fish species and does not mention cetaceans.¹³⁰

Defra is currently in the process of creating the UK Cetacean Bycatch Plan of Action.¹³¹ The Plan of Action is expected to define steps toward minimizing and, where possible, eliminating cetacean bycatch in UK fisheries to be taken in the next five years.¹³² This plan was expected in early 2021 but has not been published and has been delayed until the spring of 2022.

B. Wildlife and Countryside Act 1981

¹²² Leaper, Russell. An Evaluation of Cetacean Bycatch in UK Fisheries: Problems and Solutions, February 2021. <https://uk.whales.org/wp-content/uploads/sites/6/2021/02/cetacean-bycatch-uk-fisheries-problems-solutions.pdf>.

¹²³ Leaper, Russell. An Evaluation of Cetacean Bycatch in UK Fisheries: Problems and Solutions, February 2021. <https://uk.whales.org/wp-content/uploads/sites/6/2021/02/cetacean-bycatch-uk-fisheries-problems-solutions.pdf>.

¹²⁴ [Marine Mammal Bycatch Reporting Requirements - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/100000/marine-mammal-bycatch-reporting-requirements)

¹²⁵¹²⁵ [Marine wildlife bycatch mitigation initiative - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/100000/marine-wildlife-bycatch-mitigation-initiative)

¹²⁶ Leaper, Russell. An Evaluation of Cetacean Bycatch in UK Fisheries: Problems and Solutions, February 2021. <https://uk.whales.org/wp-content/uploads/sites/6/2021/02/cetacean-bycatch-uk-fisheries-problems-solutions.pdf>.

¹²⁷ Kay, Eleanor. Rep. United Kingdom- Fish and Seafood Market Update 2021, March 4, 2021.

https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=United%20Kingdom-%20Fish%20and%20Seafood%20Market%20Update%202021_London_United%20Kingdom

¹²⁸ “Fisheries Act 2020,” <https://www.legislation.gov.uk/ukpga/2020/22/enacted/data.pdf>.

¹²⁹ “Fisheries Act 2020,” <https://www.legislation.gov.uk/ukpga/2020/22/enacted/data.pdf>.

¹³⁰ “Fisheries Act 2020,” <https://www.legislation.gov.uk/ukpga/2020/22/enacted/data.pdf>.

¹³¹ Marine Strategy Part One: UK Updated Assessment and Good Environmental Status. Department for Environment Food and Rural Affairs, October 2019.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/841233/mar

¹³² “UK Fisheries Bycatch Policy.” Clean Catch UK, December 7, 2020. <https://www.cleancatchuk.com/about/uk-fisheries-bycatch-policy/>.

Under the Wildlife and Countryside Act 1981, it is illegal to intentionally kill, injure, or take any wild animal included in the Act's Schedule 5, which includes all dolphins, whales, and porpoises.¹³³ The act also states that anyone who "intentionally or recklessly" disturbs or harasses a dolphin or whale (Cetacea) will be "guilty of an offence."¹³⁴

C. Conservation of Seals Act 1970

The Conservation of Seals Act 1970 was created to "provide for the protection and conservation of seals in England and Wales and Scotland and in the adjacent territorial waters."¹³⁵ Under the Act, it is illegal to intentionally or recklessly kill, injure, or take a seal in England and Wales.¹³⁶ The Conservation of Seals Act 1970 was amended in March of 2021 so that individual seals cannot be controlled under the "netsman's defence," a provision which allowed the unlicensed killing of seals to prevent equipment damage or loss of fish.¹³⁷

D. Marine (Scotland) Act 2010 and Animals and Wildlife (Penalties, Protections and Powers) (Scotland) Act 2020

The Conservation of Seals Act 1970 was repealed in Scotland and replaced with Marine (Scotland) Act 2010. The Marine (Scotland) Act 2010 made it illegal to kill or injure a seal unless it is under license or for welfare purposes.¹³⁸ The Act included a provision which allowed licenses to be granted to kill seals to protect commercial fish farms and fisheries.¹³⁹ In response to the MMPA Imports Rule, Scotland passed the Animals and Wildlife (Penalties, Protections and Powers) (Scotland) Act 2020 amending the Marine (Scotland) Act 2010.¹⁴⁰ The Animals and Wildlife (Penalties, Protections and Powers) (Scotland) Act 2020, effective November 30, 2020, repeals the provision that allowed seals to be killed to protect commercial fishing.¹⁴¹ It also increases penalties for certain wildlife crimes to five years imprisonment and unlimited fines.¹⁴²

E. Wildlife (Northern Ireland) Order 1985

¹³³ "Wildlife and Countryside Act 1981," March 1, 1982. <https://www.legislation.gov.uk/ukpga/1981/69>.

¹³⁴ "Wildlife and Countryside Act 1981," March 1, 1982. <https://www.legislation.gov.uk/ukpga/1981/69>.

¹³⁵ "Conservation of Seals Act 1970," <https://www.legislation.gov.uk/ukpga/1970/30>.

¹³⁶ "Conservation of Seals Act 1970," <https://www.legislation.gov.uk/ukpga/1970/30>.

¹³⁷ Seals Guidance. Marine Management Organisation. April 2021.

<https://www.gov.uk/government/publications/protected-marine-species/seals>

¹³⁸ Marine Strategy Part Three: UK Programme of Measures. Department for Environment Food and Rural Affairs, December 2015.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/486623/marine-strategy-part3-progr

¹³⁹ "Scotland Bans Seal Killing in Major Victory to End Fish Farm Shootings." Humane Society International, June 17, 2020. <https://www.hsi.org/news-media/scotland-bans-seal-killing/>.

¹⁴⁰ "Scotland Bans Seal Killing in Major Victory to End Fish Farm Shootings." Humane Society International, June 17, 2020. <https://www.hsi.org/news-media/scotland-bans-seal-killing/>.

¹⁴¹ "Tougher Penalties for Animal and Wildlife Crime." Scottish Government. Accessed December 9, 2021. <https://www.gov.scot/news/tougher-penalties-for-animal-and-wildlife-crime/>.

¹⁴² "Tougher Penalties for Animal and Wildlife Crime." Scottish Government. Accessed December 9, 2021. <https://www.gov.scot/news/tougher-penalties-for-animal-and-wildlife-crime/>.

The Wildlife (Northern Ireland) Order 1985 protects all pinnipeds at all times and makes it illegal to intentionally or recklessly disturb a seal.¹⁴³ The Order further clarifies that licenses will not be granted to kill, injure, or take a seal to prevent damage to fisheries.¹⁴⁴

F. The Marine Strategy Regulations 2010

The UK Marine Strategy Regulations 2010 require the Secretary of State, devolved policy authorities and each Northern Ireland body to take the necessary measures to achieve or maintain good environmental status of marine waters within the marine strategy area by December 31, 2020.¹⁴⁵ The marine strategy area includes:

(a) the area of sea within the seaward limits of the territorial sea adjacent to the United Kingdom, and the sea bed and its subsoil in that area of sea; (b) any area of sea within the limits of the renewable energy zone and the sea bed and its subsoil in that area of sea; and (c) the sea bed and its subsoil within the limits of any areas designated under section 1(7) of the Continental Shelf Act 1964(20) (so far as not falling within the area mentioned in paragraph (b)).

The Marine Strategy Regulations state that the Secretary of State, devolved policy authorities, each Northern Ireland body and each public authority must “have regard to” the marine strategy “in exercising any functions so far as affecting the marine strategy area.”¹⁴⁶

The Marine Strategy Regulations 2010 led to the development of the UK Marine Strategy. The Marine Strategy explains how the UK planned to reach GES by 2020 and is currently being updated. GES is defined as “ecologically diverse and dynamic ocean and seas which are clean, healthy, and productive.”¹⁴⁷ While the Marine Strategy Regulations 2010 do not explicitly mention bycatch, the UK Marine Strategy states that pressures in UK waters, like bycatch, are potentially threatening cetaceans. However, in the UK Marine Strategy, Defra states that there is not conclusive evidence that certain populations of cetaceans need to be restored or increased and therefore the aim of the UK Marine Strategy is “to prevent significant decline from current levels in all species.”¹⁴⁸ The Marine Strategy talks about the status of bycatch as well as efforts to monitor and mitigate bycatch which are covered elsewhere in this report. The Marine Strategy does not contain specific regulations or directly require bycatch mitigation.

¹⁴³ “The Wildlife (Northern Ireland) Order 1985,” <https://www.legislation.gov.uk/nisi/1985/171/data.pdf>

¹⁴⁴ “The Wildlife (Northern Ireland) Order 1985,” <https://www.legislation.gov.uk/nisi/1985/171/data.pdf>

¹⁴⁵ “The Marine Strategy Regulations 2010,” <https://www.legislation.gov.uk/ukxi/2010/1627/made/data.pdf>

¹⁴⁶ “The Marine Strategy Regulations 2010,” <https://www.legislation.gov.uk/ukxi/2010/1627/made/data.pdf>

¹⁴⁷ Marine Strategy Part One: UK Updated Assessment and Good Environmental Status. Department for Environment Food and Rural Affairs, October 2019. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/841233/mar

¹⁴⁸ Marine Strategy Part One: UK Updated Assessment and Good Environmental Status. Department for Environment Food and Rural Affairs, October 2019.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/841233/mar

VI. The UK's Compliance with the MMPA Imports Rule

A. MMPA Imports Rule Requirements

Under the MMPA, the U.S. government “shall ban” all seafood imports caught with fishing gear that kills or seriously injures marine mammals “in excess of United States standards.”¹⁴⁹ In applying this requirement, the U.S. “shall insist on reasonable proof” from the exporting nation of the effects of its exporting fisheries on marine mammals – i.e., its marine mammal bycatch.¹⁵⁰

To implement this provision, the National Marine Fisheries Service (NMFS) issued its MMPA Imports Rule.¹⁵¹ Under the Rule, for the UK to continue exporting fish to the United States after December 31, 2022, the nation must apply for and receive a “comparability finding” from NMFS, which is essentially a determination that the UK’s bycatch and bycatch program for each exporting fishery meets U.S. standards.¹⁵²

Under the Rule, for fisheries operating within the UK’s EEZ to receive a comparability finding, the UK must show:

- (1) The UK “[p]rohibits the intentional mortality or serious injury of marine mammals in the course of commercial fishing in the fishery;” and
- (2) For any fishery deemed an export fishery on NMFS’s LOFF, the UK “maintains a regulatory program” for the fishery “that is comparable in effectiveness to the U.S. regulatory program.”

To demonstrate a comparably effective regulatory program, the UK must show it maintains a program “that includes[] or effectively achieves comparable results as” the following components:

- (a) “Marine mammal assessments for . . . for stocks . . . that are killed or seriously injured in the fishery;”
- (b) “An export fishery register,” listing all fishing vessels in the fishery, including time, season, gear type, and target species;
- (c) Regulatory requirements that include:
 - (i) A requirement that vessel operators report all marine mammal injury or death;
 - (ii) A requirement that fishers implement measures to reduce mortality/serious injury;
- (d) Monitoring procedures in the export fishery to estimate mortality/serious injury

¹⁴⁹ 16 U.S.C. § 1371(a)(2).

¹⁵⁰ *Id.*

¹⁵¹ 81 Fed. Reg. 54,415 (Aug. 16, 2016).

¹⁵² 50 C.F.R. § 216.24(h)(6).

from the fishery and cumulatively from other export fisheries on same marine mammal stocks;

- (e) Calculation of bycatch limit for marine mammals taken in fishery. The “bycatch limit” is the potential biological removal (PBR) level or a “comparable scientific metric;” and
- (f) Demonstration that mortality/serious injury from the fishery (and cumulatively with other export fisheries) “[d]o[es] not exceed the bycatch limit.”¹⁵³

Under both the MMPA and the MMPA Imports Rule, the UK bears the burden of demonstrating each export fishery meets these requirements. The Rule states that the “harvesting nation shall submit . . . an application . . . , along with documentary evidence demonstrating” the conditions have been met “for each” fishery.¹⁵⁴

Accordingly, in order to achieve a comparability finding under the MMPA Imports Rule, the UK must demonstrate and document that it meets each of the conditions listed above or that it maintains a regulatory program that “effectively achieves comparable results,” a strict standard.

B. The UK Fulfills Some Requirements of the MMPA Imports Rule but Likely Does Not Meet All U.S. Bycatch Standards

1. The UK Bans Intentional Killing

The MMPA Imports Rule requires that, to export seafood to the United States, the UK must demonstrate that it “[p]rohibits the intentional mortality or serious injury of marine mammals in the course of commercial fishing in the fishery.”¹⁵⁵ The Wildlife and Countryside Act 1981 makes it illegal to intentionally kill, injure, or take all dolphins, whales, and porpoises.¹⁵⁶ The Conservation of Seals Act 1970, Animals and Wildlife (Penalties, Protections and Powers) (Scotland) Act 2020, and Wildlife (Northern Ireland) Order 1985 make it illegal to intentionally or recklessly kill, injure, or take a seal.¹⁵⁷ Together these laws ban the intentional killing of marine mammals in the UK, meeting the U.S. standard.

2. The UK Likely Does Not Maintain a Regulatory Program “Comparable in Effectiveness” to the U.S. Program for All Export Fisheries

As detailed above, under the MMPA Imports Rule, the UK must demonstrate it “maintains a regulatory program” for the fishery “that is comparable in effectiveness to the U.S. regulatory program,” including the five components laid out in the Rule or that it effectively achieves comparable results as maintaining such a program.

¹⁵³ Id. § 216.24(h)(6)(iii)(C).

¹⁵⁴ 16 U.S.C. 1371(a)(2); 50 C.F.R. § 216.24(h)(5).

¹⁵⁵ 50 C.F.R. § 216.24(h)(6)(iii)(C).

¹⁵⁶ “Wildlife and Countryside Act 1981,” March 1, 1982. <https://www.legislation.gov.uk/ukpga/1981/69>.

¹⁵⁷ “Conservation of Seals Act 1970,” <https://www.legislation.gov.uk/ukpga/1970/30>.

(a) The UK Conducts Marine Mammal Assessments for Most Stocks Bycaught

The MMPA Imports Rule requires that the UK demonstrate that it “maintains a regulatory program that provides for . . . [m]arine mammal assessments . . . for stocks . . . that are killed or seriously injured in the fishery” or that the nation achieves “comparable . . . effectiveness” to the U.S. program of annual stock assessments.¹⁵⁸ It is critical that stock assessments for bycaught stocks be conducted to know whether bycatch is below PBR.

The UK supports large-scale ship and aerial surveys of the distribution and abundance of cetaceans in European Atlantic waters through Small Cetaceans in European Atlantic waters and the North Sea (SCANS) which operate out of the Sea Mammal Research Unit at the University of St. Andrews Scotland.¹⁵⁹ These surveys started in 1994 in response to concerns about bycatch of harbor porpoises and have taken place approximately every ten years.¹⁶⁰ The last survey (SCANS-III) was in July of 2016 and utilized three ships and seven aircrafts to survey whales, dolphins, and porpoises along predetermined transects.¹⁶¹

SCANS-III obtained data for many species that are bycaught in UK waters, but not all.¹⁶² The species for which estimates of abundance were able to be calculated include harbor porpoise, bottlenose dolphin, Risso’s dolphin, white-beaked dolphin, white-sided dolphin, common dolphin, striped dolphin, pilot whale, all beaked whale species combined, sperm whale, minke whale and fin whale. IWC stranding data suggests that there may be additional species impacted by bycatch in UK fisheries including the humpback whale, orca, pygmy sperm whale, and sei whale. Stock assessments were not obtained for these species during SCANS-III.¹⁶³ Additionally, beaked whale species were combined in SCANS-III.¹⁶⁴ Without abundance estimates for each individual species it is not possible to calculate PBR.

The UK was mandated to observe, monitor, and mitigate bycatch under EU Council Regulation 812/2004.¹⁶⁵ Although Defra has contracted SCANS stock assessments for marine mammals in European Atlantic waters to fulfill this requirement, the UK does not appear to maintain its own regulatory program for marine mammal assessments and is no longer required under EU law to

¹⁵⁸ 50 C.F.R. § 216.24(h)(6)(iii)(C).

¹⁵⁹ SCANS-III. Accessed November 18, 2021. <https://synergy.st-andrews.ac.uk/scans3/>.

¹⁶⁰ SCANS-III. Accessed November 18, 2021. <https://synergy.st-andrews.ac.uk/scans3/>.

¹⁶¹ SCANS-III. Accessed November 18, 2021. <https://synergy.st-andrews.ac.uk/scans3/>.

¹⁶² Hammond, P. S., Claire Lacey, Anita Gilles, S. Viquerat, Peter Boerjesson, H. Herr, K. Macleod et al. Estimates of cetacean abundance in European Atlantic waters in summer 2016 from the SCANS-III aerial and shipboard surveys. Wageningen Marine Research, 2

¹⁶³ Hammond, P. S., Claire Lacey, Anita Gilles, S. Viquerat, Peter Boerjesson, H. Herr, K. Macleod et al. Estimates of cetacean abundance in European Atlantic waters in summer 2016 from the SCANS-III aerial and shipboard surveys. Wageningen Marine Research, 2

¹⁶⁴ Hammond, P. S., Claire Lacey, Anita Gilles, S. Viquerat, Peter Boerjesson, H. Herr, K. Macleod et al. Estimates of cetacean abundance in European Atlantic waters in summer 2016 from the SCANS-III aerial and shipboard surveys. Wageningen Marine Research, 2

¹⁶⁵ Cetacean Bycatch Observer Monitoring System (Continued as ME6004) - MB5203. Defra. Accessed November 18, 2021.

<http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=18535>.

do so. Additionally, the SCANS surveys do not cover all species that are likely to be bycaught in UK fisheries.

(b) The UK Likely Maintains an Export Fishery Registry for Large Vessels

The MMPA Imports Rule requires that export nations either maintain an “export fishery register” listing all fishing vessels in the fishery, including time, season, gear type, and target species or effectively achieve comparable results as maintaining such a registry.¹⁶⁶ In the UK, all licensed commercial fishing vessels must be registered on the UK Ship Register, which is an executive agency of the UK’s Department for Transport.¹⁶⁷

The MMO publishes UK fishing vessel lists which include administrative port, home port, port letters and number, the vessel name, the registry of shipping and seamen number, and overall length.¹⁶⁸ There are two lists maintained, including vessels over 10 meters, and vessels 10 meters and under.¹⁶⁹ These lists do not include target species or gear type for each vessel.

The UK also requires fishing vessels over 10m to submit logbook information recording data on fishing activity by trip, including details of catch, gear used, and area fished.¹⁷⁰ Submission of logbook data is not required for vessels under 10m though some data is provided voluntarily.¹⁷¹ Data are then processed by authorities into a database for statistical analysis.¹⁷² The database likely constitutes an export fishery registry for vessels over 10m. It is unclear whether the UK maintains a complete export fisheries registry for vessels under 10m. In the UK, landings by vessels under 10m are significant – in 2018, landings by vessels under 10m represented 15% of the total value of fish landed.¹⁷³

The MMO then publishes annual UK Sea Fisheries Statistics reports which include fishing effort (Days at Sea), gear types, and target species groups.¹⁷⁴ This information is not provided by individual vessel but instead is grouped together as summary statistics. Therefore, it appears that the UK does maintain a register with all the necessary information for boats over 10m and while

¹⁶⁶ 50 C.F.R. § 216.24(h)(6)(iii)(C).

¹⁶⁷ “Marine, Fisheries and Seal Licensing.” Scottish Government. Accessed November 18, 2021.

<https://www.gov.scot/policies/marine-and-fisheries-licensing/fishing-vessel-licensing/>.

¹⁶⁸ “UK Fishing Vessel Lists,” September 2, 2021. <https://www.gov.uk/government/collections/uk-vessel-lists>.

¹⁶⁹ “UK Fishing Vessel Lists,” September 2, 2021. <https://www.gov.uk/government/collections/uk-vessel-lists>.

¹⁷⁰ <https://www.gov.uk/guidance/fishing-activity-and-landings-data-collection-and-processing#data-collection-for-vessels-over-10-metres-in-length>.

¹⁷¹ <https://www.gov.uk/guidance/fishing-activity-and-landings-data-collection-and-processing#data-collection-for-vessels-over-10-metres-in-length>.

¹⁷² <https://www.gov.uk/guidance/fishing-activity-and-landings-data-collection-and-processing#data-processing>.

¹⁷³ UK Sea Fisheries Statistics 2020. Marine Management Organisation. Accessed November 18, 2021.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1020837/UK_Sea_Fisheries_Statistics_2020_-_AC_checked.pdf.

¹⁷⁴ UK Sea Fisheries Statistics 2020. Marine Management Organisation. Accessed November 18, 2021.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1020837/UK_Sea_Fisheries_Statistics_2020_-_AC_checked.pdf.

some of that information is available for the public, it may not be available to view by vessel. It is unclear whether the UK maintains a complete export fisheries registry for vessels under 10m.

(c) The UK Maintains Regulatory Requirements for Bycatch in Some Fisheries but More Information Is Needed

Next, under the MMPA Imports Rule, the UK must demonstrate it has a regulatory program that both requires marine mammal reporting and requires fishers to implement measures to reduce mortality/serious injury.

(i) The UK Requires Reporting of All Marine Mammal Deaths and Injuries

The MMPA Imports Rule requires that exporting nations require that vessel operators “report all intentional and incidental mortality and injury of all marine mammals in the course of commercial fishing operations” or achieve comparable results to such a requirement.¹⁷⁵ As of November 2021 and in response to the U.S. MMPA Imports Rule, the UK has a mandatory requirement under fishing vessel license conditions that fishers report any bycatch of marine mammals within the course of commercial fishing operations to the MMO within 48 hours of the end of a fishing trip.¹⁷⁶ This is required both within the UK’s EEZ and for UK vessels in international waters.¹⁷⁷ The template for reporting requires that fishers provide the vessel name, registration number, interaction date and time, species, number of individuals killed or injured, gear type, target species, and whether or not an observer was present.¹⁷⁸ We appreciate the UK taking this step and, as discussed below, it is critical that the other methods of monitoring are used in combination with reporting to get an accurate measure of bycatch.

(ii) The UK Requires that Fishers Implement Measures to Reduce Mortality/Serious Injury in Some Fisheries

Next, under the MMPA Imports Rule, the UK must maintain regulatory requirements that require fishers to implement measures to reduce mortality/serious injury or “effectively achieves comparable results” as requiring such measures.¹⁷⁹

The UK has taken some measures to reduce bycatch. The MMO requires the use of ADDs on some vessels that are 12 meters or above to reduce dolphin and porpoise bycatch. ADDs must be used all year on vessels using bottom set gill or entangling nets in Area VII d, e, f, g, h, and j (Figure 3). Additionally, they must be use in Area IV all year if the net’s mesh size is 220mm or

¹⁷⁵ 50 C.F.R. § 216.24(h)(6)(iii)(C).

¹⁷⁶ Marine Mammal Bycatch Reporting Requirements. Marine Management Organisation, November 8, 2021. <https://www.gov.uk/government/publications/marine-mammal-bycatch-reporting-requirements>.

¹⁷⁷ Marine Mammal Bycatch Reporting Requirements. Marine Management Organisation, November 8, 2021. <https://www.gov.uk/government/publications/marine-mammal-bycatch-reporting-requirements>.

¹⁷⁸ Marine Mammal Bycatch Reporting Requirements. Marine Management Organisation, November 8, 2021. <https://www.gov.uk/government/publications/marine-mammal-bycatch-reporting-requirements>.

¹⁷⁹ 50 C.F.R. § 216.24(h)(6)(iii)(C).

more, and between August 1 and October 31 if the net is 400 meters or less.¹⁸⁰ While this requirement is a good step, most of the vessels that use static nets are under 12 meters in length.¹⁸¹ Additionally, as mentioned above, vessels under 10 meters made up 74 percent of the UK's fishing fleet in 2019.¹⁸²

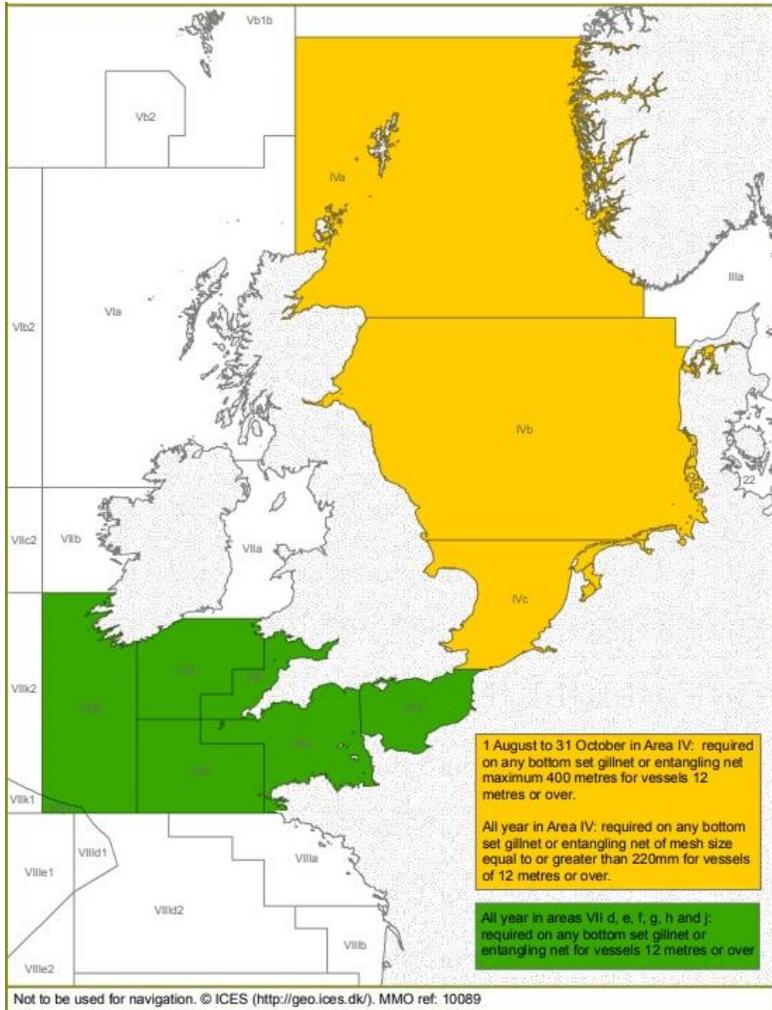


Figure 3. Areas where the use of ADDs is required. Extracted from <https://www.gov.uk/guidance/reduce-dolphin-and-porpoise-by-catch-comply-with-regulations>.

In addition to requiring ADDs for certain vessels 12 meters or over, seasonal gear restrictions have been put in place to mitigate bycatch. The South West Territorial Waters (Prohibition of Pair Trawling) Order 2004 was passed to prevent bycatch of dolphin, in particular the common

¹⁸⁰ “Reduce Dolphin and Porpoise by-Catch.” GOV.UK. Accessed November 18, 2021. <https://www.gov.uk/guidance/reduce-dolphin-and-porpoise-by-catch-comply-with-regulations>.

¹⁸¹ Understanding the impact of marine mammal bycatch - ME6007. Defra, n.d. <http://sciencesearch.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=20070>.

¹⁸² “Fishing Data and Insight.” Seafish. Accessed November 18, 2021. <https://www.seafish.org/insight-and-research/fishing-data-and-insight/>.

dolphin, and works by banning seasonal use of UK pair trawls in English waters of the South West English Channel.¹⁸³

While these mitigation measures are helpful, it is unclear what requirements are applicable to specific UK fisheries exporting to the United States. NMFS must insist that the UK demonstrate mitigation measures applicable to each U.S. export fishery, particularly gillnet and trawl fisheries, which are known to cause bycatch.

(d) The UK Has Monitoring Procedures in Place to Estimate Bycatch for Some Export Fisheries

The MMPA Imports Rule also requires the UK to demonstrate it has monitoring procedures in place to estimate mortality and serious injury for each export fishery both individually and cumulatively for each stock or that the nation effectively achieves comparable results as conducting such monitoring.¹⁸⁴

(i) Logbooks

As mentioned above, the UK has a mandatory requirement that fishers report any bycatch of marine mammals within the course of commercial fishing operations to the MMO within 48 hours of the end of a fishing trip.¹⁸⁵ This is required both within the UK's EEZ and for UK vessels in international waters.¹⁸⁶ Fishers must provide the vessel name, registration number, interaction date and time, species, number of individuals killed or injured, gear type, target species, and whether or not an observer was present.¹⁸⁷

Requiring fishers to report bycatch is critical for estimating bycatch in fisheries, but there are some limitations. Logbooks have been found to underestimate and underreport marine mammal entanglement. One recent study concluded that "cetacean bycatch recorded by observers was higher than that from fisher logbooks by an average of 774% in trawls, 7348% in nets, and 1725% in hook and line gears."¹⁸⁸ Additionally, fishers reporting on bycatch using identification guides might not accurately identify species, particularly if a rare species is caught that a fisher

¹⁸³ Marine Strategy Part Three: UK Programme of Measures. Department for Environment Food and Rural Affairs, December 2015.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/486623/marine-strategy-part3-progr

¹⁸⁴ 50 C.F.R. § 216.24(h)(6)(iii)(C).

¹⁸⁵ Marine Mammal Bycatch Reporting Requirements. Marine Management Organisation, November 8, 2021. <https://www.gov.uk/government/publications/marine-mammal-bycatch-reporting-requirements>.

¹⁸⁶ Marine Mammal Bycatch Reporting Requirements. Marine Management Organisation, November 8, 2021. <https://www.gov.uk/government/publications/marine-mammal-bycatch-reporting-requirements>.

¹⁸⁷ Marine Mammal Bycatch Reporting Requirements. Marine Management Organisation, November 8, 2021. <https://www.gov.uk/government/publications/marine-mammal-bycatch-reporting-requirements>.

¹⁸⁸ Basran, Charla Jean, and Guðjón Már Sigurðsson. "Using Case Studies to Investigate Cetacean Bycatch/Interaction Under-Reporting in Countries With Reporting Legislation." *Frontiers in Marine Science* 8 (2021).

has not previously encountered.¹⁸⁹ Therefore, supplementary bycatch monitoring protocols that include observer coverage are necessary.

(ii) Observer Coverage and Strandings Data

In addition to fishers' records, bycatch is monitored through the BMP, SMASS and the UK Cetacean Strandings Investigation Programme (CSIP).¹⁹⁰ The BMP is managed as a research project under Defra and uses onboard observers on commercial fishing vessels to monitor bycatch of protected species. The BMP has been collecting observer data since 2011.¹⁹¹ As mentioned above, observer effort varies each year under the project and does not cover all fisheries. In 2019, there were 215 bycatch monitoring days in 2019, which were less than usual due to staffing issues.¹⁹² In 2018, there were 339 protected species bycatch monitoring days, including 172 days on static net vessels, 129 days on pelagic trawler vessels, 25 days on longline fishery vessels, and 13 days on ring net fishery vessels.¹⁹³

Using the data from the BMP, estimates of marine mammal bycatch have been produced annually since 2006.¹⁹⁴ These estimates were required under EU Council Regulation 8012/2004.¹⁹⁵ It is unclear but seems likely that Defra will continue these estimates, as the 2019 BMP report mentions methods for future monitoring.¹⁹⁶

In addition to onboard observation of bycatch, the UK gathers additional information about bycatch through the CSIP. The CSIP has been running since 1990 and investigates and

¹⁸⁹ "Collateral Damage: How to Reduce Bycatch in Canada's Commercial Fisheries." Oceana Canada, 2017. https://www.oceana.ca/sites/default/files/bycatch_summary_final_en.pdf.

¹⁹⁰ Marine Strategy Part One: UK Updated Assessment and Good Environmental Status. Department for Environment Food and Rural Affairs, October 2019. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/841233/mar

¹⁹¹ Cetacean Bycatch Observer Monitoring System (Continued as ME6004) - MB5203. Defra. Accessed November 18, 2021.

<http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=18535>.

¹⁹² Kingston, Al, Len Thomas, and Simon Northridge. Rep. UK Bycatch Monitoring Programme Report for 2019. Sea Mammal Research Unit, May 2021.

http://randd.defra.gov.uk/Document.aspx?Document=15193_2019BMPAnnualReport.pdf.

¹⁹³ Couperus, A.S., 2019. Annual report on the implementation of Council Regulation (EC) No 812/2004–2018 (No. 19.021). Centre for Fishery Research (CVO).

¹⁹⁴ Understanding the impact of marine mammal bycatch - ME6007. Defra, n.d.

<http://scienceresearch.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=20070>.

¹⁹⁵ Understanding the impact of marine mammal bycatch - ME6007. Defra, n.d.

<http://scienceresearch.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=20070>.

¹⁹⁶ Kingston, Al, Len Thomas, and Simon Northridge. Rep. UK Bycatch Monitoring Programme Report for 2019. Sea Mammal Research Unit, May 2021.

http://randd.defra.gov.uk/Document.aspx?Document=15193_2019BMPAnnualReport.pdf.

documents strandings of all cetaceans.¹⁹⁷ Other strandings programs including SMASS and Northern Ireland’s DAERA Marine Mammal Stranding Investigations contribute data to CSIP.¹⁹⁸

While the UK has the BMP and CSIP in place to monitor bycatch, there are limitations to both programs. The BMP collects data that has been used to estimate bycatch rates for harbor porpoise and common dolphin throughout the UK, but more observer effort in a greater number of fisheries would be necessary to gain a more accurate picture of the impacts of bycatch on marine mammal populations. The CSIP also collects useful data on marine mammal populations, but it is usually not possible to determine where entanglement occurred and therefore which fisheries may require additional bycatch mitigation efforts.

(e) The UK Has Not Published a Bycatch Limit for Its Export Fisheries

The MMPA Imports Rule requires the UK to calculate a bycatch limit for marine mammals taken in each fishery.¹⁹⁹ The “bycatch limit” is PBR or a “comparable scientific metric.”²⁰⁰ The UK may be able to calculate bycatch limits for many species since there are stock assessments, but bycatch limits do not appear to be published.

As mentioned above, the Marine Mammal Expert Group of OSPAR, a convention of which the UK is a member, has calculated provisional threshold values for some stocks of harbor porpoise, grey seal, and common dolphin.²⁰¹ However, it is unclear whether the UK uses these thresholds as its own limits.

In its BMP reports, the UK references the 1 percent and 1.7 percent bycatch objectives defined by ASCOBANS. However, ASCOBANS and its bycatch limits objectives only apply to small cetaceans. Additionally, the ASCOBANS objectives are likely to yield weaker anthropogenic mortality limits than PBR.²⁰² We urge NMFS to fully evaluate how the ASCOBANS bycatch limits compare to PBR and whether they constitute a “comparable scientific metric,” as required by the MMPA Imports Rule. We were not able to find additional bycatch limits set by the UK.

(f) It Is Unlikely the UK Will Be Able to Demonstrate that Serious Injury/Mortality from All Export Fisheries Is Below the Bycatch Limit

¹⁹⁷ UK Cetacean Strandings Investigation Programme. Accessed November 18, 2021. <https://ukstrandings.org/>.

¹⁹⁸ Marine Strategy Part Two: UK Updated Monitoring Programmes. Department for Environment Food and Rural Affairs, March 2021.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/971696/uk-marine-strategy-part-two-m

¹⁹⁹ 50 C.F.R. § 216.24(h)(6)(iii)(C).

²⁰⁰ 50 C.F.R. § 216.24(h)(6)(iii)(C).

²⁰¹ ICES. 2021. Workshop on estimation of MOrtality of Marine MAMmals due to Bycatch (WKMOMA). ICES Scientific Reports. 3:106. 95 pp. <https://doi.org/10.17895/ices.pub.9257>

²⁰² Scheidat, M., Leaper, R., Van Den Heuvel-Greve, M., & Winship, A. (2013). Setting maximum mortality limits for harbour porpoises in Dutch waters to achieve conservation objectives.

Finally, the MMPA Imports Rule requires that the UK demonstrate that mortality/serious injury from the fishery and cumulatively with other export fisheries “[d]o not exceed the bycatch limit.”²⁰³

It is unclear but unlikely that the UK will be able to demonstrate serious injury and mortality for each U.S. export fishery and its export fisheries cumulatively do not exceed the bycatch limit because data are lacking. At the very least, sufficient bycatch data are not publicly available.

First, as noted above, the UK has not published bycatch limits for all marine mammals subject to bycatch in each of its export fisheries. Such limits require population monitoring, which occurs on some but not all species and stocks. Second, while the UK produces bycatch estimates as part of its annual BMP report, those estimates are based on limited observer data that do not cover all fisheries and areas, as described above. Moreover, the UK just instituted requirements that fishers report bycatch incidents in November 2021, and reported data is not yet available. Available data do not link bycatch to specific export fisheries. Without reliable bycatch data for each of its export fisheries, it is unlikely that the UK can demonstrate that none of its export fisheries exceed the bycatch limit. It is likely that additional bycatch mitigation measures are needed, but accurate bycatch estimates are needed to determine where they are necessary.

As mentioned above, estimates of common dolphin and harbor porpoise bycatch exceeds thresholds for anthropogenic removal in several areas that include UK waters. However, it is not possible to determine which fisheries are contributing the most to common dolphin and harbor porpoise bycatch in these areas with the publicly available data. Regardless, it is highly likely that the gillnet fisheries in the LOFF in these regions require additional mitigation measures. The UK would need to show that export fisheries that operate in Subarea 27.7 and the Celtic Sea are not contributing to bycatch that exceeds acceptable limits to reach a comparability finding.

Similarly, while underreported, bycatch in Scottish creel fisheries is likely to be impacting the humpback whale population. If these fisheries export to the U.S., the UK will need to demonstrate that it has calculated PBR, that mitigation measures are in place in these fisheries, and that bycatch is below PBR.

VII. Conclusion

The UK likely meets some of the requirements of the MMPA Imports Rule for some of its export fisheries. The UK bans intentional killing of marine mammals, conducts stock assessments for some marine mammal species, maintains an export fishery register for vessels greater than 10m in length, recently began requiring fishers to report all bycatch, and is implementing bycatch mitigation measures requiring ADDs on some vessels.

However, based on publicly available information, data are lacking for the UK to demonstrate it meets MMPA Imports Rule requirements for all export fisheries. Fishery-specific bycatch data is not available, and we were unable to identify UK-published bycatch limits for marine mammals taken in its fisheries. Therefore, we were unable to determine whether its export fisheries in the

²⁰³ 50 C.F.R. § 216.24(h)(6)(iii)(C).

LOFF exceed a bycatch limit. However, bycatch of harbor porpoises and common dolphins is a known conservation concern in the UK, and it is likely that export fisheries are contributing to bycatch levels that exceed provisional thresholds for anthropogenic removal.

Where regulatory measures and programs are in place in the UK, it is unlikely in some cases that they meet the U.S. standard. The UK requires the use of ADDs on some vessels to mitigate bycatch but ADDs are not required on most vessels using static nets. Additionally, the UK's marine mammal stock assessment and bycatch monitoring programs do not cover all fisheries and marine mammal stocks leaving gaps in bycatch data.

Based on our assessment, we strongly urge NMFS to require the UK to fully demonstrate that it calculates bycatch limits for marine mammals and that bycatch is below the limits set forth in all of its export fisheries.