The Bycatch Threat in EU Waters

The bycatch problem

Bycatch – the unwanted entanglement of animals in fishing gears – is considered the greatest global threat to the conservation of cetaceans. In EU waters, incidental catches have serious impacts on whales, dolphins and porpoises, especially for vulnerable species like the Baltic harbour porpoise and the Bay of Biscay common dolphin.

Many Member States are not doing enough to prevent bycatch, particularly the governments of Belgium, Denmark, Estonia, Finland, France, Germany, Ireland, Latvia, Lithuania, the Netherlands, Poland, Portugal, Spain, Sweden, and the United Kingdom. However, a group of environmental NGOs (including Whale and Dolphin Conservation, ClientEarth, Seas At Risk, and Coalition Clean Baltic) has taken up the mantle by jointly calling on the European Commission to take legal action against these governments for failing in their legal duty to protect cetaceans.

While the word ‘bycatch’ may sound innocuous, it masks a grim reality. When cetaceans are trapped in fishing nets, many die from asphyxiation or suffer significant injuries that can lead to death. The trauma of entanglement can also affect the animals’ behaviour and reproduction, which in turn has long-term effects on the survival of their populations. Nor is this disturbance limited to the individual cetaceans; it can have a knock-on effect for the transmission of ecologically important knowledge within a population. Cetaceans have complex social lives and different individuals within a population play specific roles, which can include sharing important information such as the location of food or safe places for rearing young.
The Failure of Member State Governments

The above-mentioned governments have systematically failed to implement conservation measures that ensure that bycatch does not have a significant impact on these species. They have also failed to establish and enforce monitoring systems to enable the necessary understanding of the impact of bycatch on many populations of cetaceans. This lack of monitoring has further impaired the ability of these governments to take the necessary measures to maintain or restore these populations at favourable conservation status.

European Union law mandates that all cetaceans are to be protected against bycatch. The Habitats Directive 92/43/EEC imposes a series of obligations on member states in relation to cetaceans:

- Obligation to establish a system to monitor the incidental capture and killing of cetaceans [Art. 12(4)];
- Obligation to, in light of the information gathered by the monitoring system, take further research or conservation measures as required to ensure that incidental capture and killing does not have a significant negative impact on the species concerned [Art. 12(4)];
- Obligation to establish a system of strict protection for cetaceans, prohibiting all forms of deliberate disturbance, capture and killing of cetaceans in the wild [Arts. 12(1)(a), 12(1)(b) and 12(3)].

The NGO complaint has argued that these governments are in breach of these obligations and that they have even failed to comply with Regulation 812/2004 – the minimum expected from Member States in relation to their duty to monitor and minimise the likelihood of killing, capture or disturbance to cetaceans by their fishing fleets. None of the governments of these Member States has implemented concrete, specific, coherent and coordinated measures that prevent the killing, capture or disturbance of cetaceans in their waters or by their fishing fleets.

These governments urgently need to take better conservation measures to prevent cetacean bycatch, including by implementing monitoring systems and improving their reporting in relation to bycatch. With this complaint, the Commission has been asked to take infringement action against the governments for these serious breaches of EU environmental law.
The Northeast Atlantic common dolphin is considered to have an 'Unfavourable-Inadequate' conservation status for the European Atlantic, with bycatch in fishing gear being the primary concern. Regional experts, the ICES Bycatch Working Group and ASCOBANS (Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas), have raised repeated concerns about the high and unsustainable level of bycatch.

Common dolphins have been entangled in fishing gear in high numbers for at least 30 years. Scientists have calculated that since 1997 between 3,600 and 4,700 dolphins were bycaught per year on average. Most recently, there was a dramatic increase in strandings along the French coastline from December 2018 to March 2019. Only a small percentage of dolphins that become bycaught in fishing gear will wash ashore.

There appears to be a seasonal upward trend in stranding numbers of common dolphins, with a primary peak from December to March and a secondary peak in August and September, supporting the assumption that there has been an increase in the number of dolphins bycaught in recent years in the Southern Celtic Seas and Bay of Biscay area.

The fisheries in this area, however, remain poorly monitored and so, are poorly understood, so the impact of fishing cannot be fully quantified due to a lack of data on incidental capture rates in some fisheries, and limited sampling in other fisheries. As a result, bycatch is not assessed and it is not well mitigated. Given the Unfavourable status of common dolphins, and the uncertainty about number of populations in this region, this issue requires urgent and decisive action. Simultaneous monitoring and mitigation are required.

Emergency measures have been proposed based on article 12 of the Common Fisheries Policy, and with reference to Article 12 of the Habitats Directive.
Proposed measures

To minimise the impact of bycatch on the North East Atlantic common dolphin, two levels of measures are proposed: 1) Spatial and temporal closures; and, 2) Year-round on board observations and mitigation, as per the recommendations of the IWC Scientific Committee advice. If these measures are not taken immediately as a matter of precaution, we risk a situation where the population becomes depleted and fisheries have to be closed throughout the region for a much longer period of time.

1) Spatial and temporal closures

On the basis of the precautionary principle and Article 12 of Regulation 1380/2013 (the CFP), we ask that the European Commission takes the necessary measures to close the fisheries that are responsible for the common dolphin bycatch in the North East Atlantic between the beginning of December 2019 and the end of March 2020. This must include, ad minima, the pair-trawl and the gillnet fisheries.

Reduction, rather than displacement of fishing effort is required, due to the wide range of common dolphins and the risk of moving the bycatch problem rather than solving it. Closures should remain in place each winter until effective bycatch prevention and conservation measures are implemented on a permanent basis by the Member States. Dynamic, real-time closures should be considered once a predetermined level of bycatch has occurred in any fishery. These levels must be determined independently by regional cetacean bycatch scientists.

2) Year-round on board observations and mitigation – in the wider region

The following measures should therefore be implemented as a matter of urgency:

- Outside of the peak season from December to March, over the next 12 months, dedicated observations (observers and/or electronic monitoring) and a pre-agreed set of rules on a specific course of action as a response to observed dolphins at sea and to bycatch should be implemented. Fishing vessels should only fish in the region if they allow independent observations to be undertaken on board.
- Dedicated observers and/or electronic monitoring should be undertaken on all fleets that may be involved in common dolphin bycatch in the region year-round. This includes the sea bass, hake and tuna pair trawl fishery, set net fisheries (including bottom set gill-net in particular the combined sole-hake gillnets), pelagic freezer trawlers and high vertical opening trawl fisheries. Nets should only be set during daylight hours. If dolphins are observed by independent observations in the vicinity of the gear, nets should not be set and the vessel should move area.
- Fishing activities should halt and the vessel should move area if any bycatch is observed.
- Member States should report monitoring measures to ICES in a specified format on a monthly basis and results should lead directly to concurrent mitigation actions.
- At the same time, a scientific panel should be set up to meet regularly and to look at the data as it comes in and to develop a robust, coherent regional mitigation plan to be implemented within and no later than 12 months. After 12 months a longer-term monitoring and mitigation plan is in place, and funding is secured for implementation, as required based on the first 12 months of data.

To minimise the impact of bycatch on the North East Atlantic common dolphin, two levels of measures are proposed: 1) Spatial and temporal closures; and, 2) Year-round on board observations and mitigation, as per the recommendations of the IWC Scientific Committee advice. If these measures are not taken immediately as a matter of precaution, we risk a situation where the population becomes depleted and fisheries have to be closed throughout the region for a much longer period of time.

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The Baltic Sea harbour porpoise is listed by IUCN and HELCOM as critically endangered. Today its geographical range is significantly smaller than what can be induced from historical records, and there are only a few hundred animals left. While pollution and disturbance through underwater noise may be contributing to the population failing to recover, bycatch is the one acute threat causing direct mortalities in significant numbers. Given the small size of the population, the sex ratio and age distribution and the proportion of females potentially infertile due to high contaminant load, there may be less than 100 fertile females in the Baltic Proper. Losing even one of those females could have a devastating effect on the ability of the population to recover or even stay stable at the low numbers of today.

Hence, to allow this critically endangered population to recover, bycatch must be reduced to an absolute minimum, ideally to zero. However, to date initiatives from Member States to minimise bycatch are very limited and there are currently no effective measures in place to protect the Baltic Sea harbour porpoise. While Sweden designated the main part of the porpoise breeding area in the central Baltic Proper as a Natura 2000 SAC in December 2017, the long and slow process for Member States to agree joint measures for nature conservation purposes under the Common Fisheries Policy (CFP) is risking the survival of this population.

Emergency measures within existing Natura 2000 areas have been proposed based on Article 11(4) of the Common Fisheries Policy, and with reference to Article 6 of the Habitats Directive. Measures outside Natura 2000 sites have been proposed with reference to Article 12 of the Common Fisheries Policy and Article 12 of the Habitats Directive.
Proposed measures

To minimize the impact of bycatch on the Baltic Sea harbour porpoise, we urge the Commission to implement two levels of emergency measures: 1) Measures within Natura 2000 areas with reference to Article 11(4) of the CFP and Article 6 of the Habitats directive, and 2) Measures outside Natura 2000 sites, with reference to Article 12 of the Habitats directive, as well as Article 12 of the CFP.

1) Measures within Natura 2000 areas

a. Closure of the Northern Midsea Bank for all fisheries.
   The Northern Midsea bank is situated in the large Natura 2000 area designated for the important breeding area for the Baltic Proper harbour porpoise population.

b. Closing of gillnet fisheries in the rest of the Natura 2000 area Hoburgs bank och Midsjöbankarna (SE0330308) as well as in all other Natura 2000 areas east of 13.5°E until site-specific assessments has been made of the impact of use of mitigation measures such as ADDs.

Natura 2000 areas where the harbour porpoise is listed as present should be closed for gillnet fisheries, until assessment has proven beyond scientific doubt that the integrity of the respective site is not adversely affected or reduced by the use of ADDs in gillnet fisheries. If assessments show that some gillnet fishing using ADDs could be allowed, this needs to be subject to a strict permitting procedure, and with mandatory use of ADDs and AIS/high res VMS as well as camera monitoring.

2) Measures outside Natura 2000 areas

a. Mandatory use of ADDs in all commercial gillnet fisheries outside Natura 2000 areas in the entire range of the Baltic Proper harbour porpoise population, i.e east of 13.5°E

   Mandatory use of ADDs, alternative gear or other effective mitigation measures east of 13.5°E and north to the Finnish Archipelago Sea at 60.0°N.

b. Accurate recording of fishing effort and gear type for vessels of all sizes

c. Dedicated bycatch monitoring on all gillnet vessels in the region

   Monitoring of bycatch, for example using cameras on board, should be mandatory for all gillnet vessels. Detailed positioning of all vessels at all times should be mandatory.

d. Monitoring and adaptive management/mitigation measures of gillnet fisheries

   Mandatory bycatch monitoring on all gillnet vessels. If bycatch is observed, an assessment should be made and adaptive management such as alternative gear or time-area closures implemented.

Figure 1. The areas where use of ADDs is mandatory according to Regulation 812/2004, in relation to the Natura 2000 areas with the harbour porpoise listed as present within the range of the Baltic Proper population (east of 13.5°E), as well as the Northern Midsea bank which is proposed for total fisheries closure.
From 1 January 2022, a new US import rule will apply to fish and fish products imported from the EU to the US, mandating stricter requirements in relation to cetacean bycatch. In order to ensure that fish and fish products can continue to be exported to the US after this deadline, the EU must urgently take measures to ensure that its bycatch prevention procedures are comparable to the US.

The US Marine Mammal Protection Act (MMPA) import provisions rule establishes conditions for evaluating a harvesting nation’s regulatory program to address incidental and intentional mortality and serious injury of marine mammals in fisheries that export fish and fish products to the United States (US). Under this rule, fish and fish products from fisheries can only be imported into the US if the harvesting nation has applied for and received a ‘comparability finding’ from the US National Marine and Fisheries Service (NMFS). The rule establishes procedures that a harvesting nation must comply with in order to receive a comparability finding for a fishery. The rule also establishes provisions for intermediary nations to ensure that intermediary nations do not import, and re-export to the US, fish or fish products subject to an import prohibition.

NMFS has published a list of Foreign Fisheries, and is allowing a one-time only, initial five-year exemption period effective from 1 January 2017. During the exemption period, the prohibitions of this rule will not apply to imports from the harvesting nation. Nonetheless, harvesting nations are expected to develop regulatory programs to comply with the requirements to obtain a comparability finding during this time period. After the exemption period lapses on 1 January 2022, fish or fish products cannot be exported to the US unless reliable information has been provided demonstrating that they are not the product of an intentional killing or serious injury of a marine mammal. These regulations, which come into force on 1 January 2022, present an economic case for the EU to support the suggestions below relating to EU fisheries bycatch.

The broad objectives of EU legislation are comparable with the US MMPA, but the legislation has not been adequately implemented by Member States. This has resulted in a failure to achieve these objectives and ongoing high levels of bycatch in some fisheries.

The ICES Bycatch Working Group has identified a number of cetacean populations for which bycatch is at levels that cause concern for the population. These include the Baltic harbour porpoise, Iberian porpoise, Celtic porpoise, Andalusian bottlenose dolphin and NE Atlantic common dolphin. Bycatch data are too poor for many European cetacean populations to be confident of rates of bycatch or the conservation implications. There is also no agreed method across Member States for assessing the conservation implications. Indeed, with respect to assessment of the implications of bycatch, the Scientific, Technical and Economic Committee for Fisheries (STECF) Expert Working Group (EWG 19-07) concluded in 2019 that: ‘in the absence of reliable population estimates, current conservation status and stated conservation objectives for cetacean populations in EU waters, there is no objective scientific basis to propose reliable estimates for maximum potential bycatch thresholds for all the cetacean species most typically bycaught (i.e. harbour porpoises, common, striped and bottlenose dolphins and humpback whales)’.
Steps required that would make EU bycatch measures comparable to the US MMPA

As the US import provisions rule will apply from 1 January 2022, the European Commission and Member States must act with urgency, taking steps as soon as possible to ensure that the EU’s bycatch prevention regime is comparable to the US.

The European Commission should provide guidance on the implementation of all the current Directives and Regulations relevant to marine mammal bycatch. Independent bycatch experts, on behalf of the European Commission, should produce best practice guidance. The intention of the Commission guidance would be to provide detail on specific actions to be taken that are consistent with EU legislation and would enable the objectives required of the legislation to be achieved. European Maritime and Fisheries Funding (EMFF) should be made available to prevent, monitor, reduce, and ultimately eliminate bycatch.

The three areas where specific guidance is needed can broadly be described as:

1. Monitoring to establish the level of marine mammal bycatch across all fisheries that may have a bycatch problem.

   With respect to monitoring bycatch there have been a number of expert workshops that have provided recommendations on how this should be addressed. The legislative requirements in the Habitats Directive and MSFD are clear that monitoring needs to be adequate. The current monitoring deficiencies are a result of poor implementation rather than problems with the legislation.

2. Assessing the implications from both a conservation and welfare perspective, based on estimates of the total number animals involved, population size, structure and demographic parameters.

   With respect to assessment of the implications of bycatch, the MSFD requires a process to assess Good Environmental Status (GES). There is ongoing work by organisations including OSPAR, HELCOM and ASCOBANS but this needs to be prioritised and completed. To be comparable with the US MMPA the conservation objectives need to be at least as ambitious as those used by the US when developing the Potential Biological Removal (PBR) method.

3. The necessary steps and timeline to effectively minimise or eliminate marine mammal bycatch, prioritising the fisheries where the assessment of the implications of the bycatch are most severe.

   With respect to measures to minimise and where possible eliminate marine mammal bycatch (that are required by the EU legislation) the legislation enables appropriate measures but does not require anything specific except for those carried over into Regulation 2019/1241 from 812/2004 which have been found to be limited in their efficacy. Guidance on a process and timeline could be based on the US Take Reduction Plans.