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EU Progress Report:

Bycatch of
Sensitive Species

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MedBycatch Project

This report was produced in the framework of the project “Understanding Mediterranean multi-taxa bycatch of vulnerable species and testing mitigation. A collaborative approach” (MedBycatch Project).

The project is funded by the MAVA Foundation from 2017-2022, and implemented through a partnership between the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area (ACCOBAMS), the General Fisheries Commission for the Mediterranean (GFCM) of the Food and Agriculture Organization of the United Nations (FAO), the Specially Protected Areas Regional Activity Center (SPA/RAC) of the United Nations Environment Programme/Mediterranean Action Plan (UNEP/MAP), the International Union for Conservation of Nature – Centre for Mediterranean Cooperation (IUCN-Med), BirdLife Europe and Central Asia (BL ECA), the Mediterranean Association to Save the Sea Turtles (MEDASSET) and the World Wide Fund for Nature (WWF).

The project aims to address the gaps in knowledge regarding the incidental catches (bycatch) of vulnerable species during fishing operations in the Mediterranean, to conduct trials of mitigation measures, and to support the development of policies and the formulation of national/regional strategies to reduce incidental catches and increase the sustainability of fisheries. Project implementation involves field observation programmes covering different fishing gears, together with trainings, awareness raising, identification and testing of mitigation techniques, and engagement on policy at national, European and regional levels with the aim of developing tools and building knowledge applicable to the entire region. Activities in the target countries are implemented in collaboration with national partners: BIOM, and WWF Adria (Croatia), LPO (France), LIPU and WWF Italia (Italy), GREPOM and INRH (Morocco), AAO/BirdLife Tunisia, DGPAq, INSTM, and WWF North Africa (Tunisia), SEO BirdLife (Spain), DEKAMER, Dođa Derneđi, TUDAV, and WWF Turkey (Turkey).



Acronyms

Acronyms	
AC	Advisory Council
ACCOBAMS	The Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area
ASCOBANS	The Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas
BHD	Birds and Habitats Directives
CFP	Common Fisheries Policy
CMS	Convention on Migratory Species
DCF	Data Collection Framework
DG MARE	The Directorate-General of the European Commission for Maritime Affairs and Fisheries
EC	European Commission
EMFAF	European Maritime, Fisheries and Aquaculture Fund
EU-MAP	EU Multi-Annual Programme (under the DCF)
EU	European Union
EU-PoA	EU Action Plan for reducing incidental catches of seabirds in fishing gears
GES	Good Environmental Status
GFCM	General Fisheries Commission for the Mediterranean
GNS	Set gillnets (anchored)
GTR	Trammel nets
HELCOM	Helcom Convention on the Protection of the Marine Environment of the Baltic Sea Area
ICES	The International Council for the Exploration of the Sea
IWC	International Whaling Commission

Acronyms	
JR	Joint Recommendation
MAP	Multiannual management plans for fisheries
MPA	Marine protected area
MS	Member States (EU)
MSFD	Marine Strategy Framework Directive
NEAFC	North East Atlantic Fisheries Commission
NGO	Non-governmental organisation
OSPAR	The Convention for the Protection of the Marine Environment of the North-East Atlantic
PETS	Protected, endangered, and threatened species
PS	Purse seines
RAC	Regional Advisory Council
RCG	Regional Coordination Group
REM	Remote electronic monitoring
SPA/BD Protocol	Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean
STECF	Scientific, Technical and Economic Committee of Fisheries
SWW	South Western Waters
TAC	Total allowable catch
TMR	Technical Measures Regulation
UNEP/MAP	United Nations Environment Programme Mediterranean Action Plan
WGBYC	Working Group on Bycatch of Protected Species ICES

Contents

Executive Summary	6
Section 1 Introduction	8
Section 2 Bycatch of sensitive species in the EU	10
2.1 EU Legislation	10
2.2 Regional agreements	12
2.3 Bycatch sensitive species in the EU	14
2.4 Conservation status of bycatch sensitive species in the EU	16
Section 3 Implementation of EU legislation on bycatch: progress, challenges, and recommendations	19
3.1 EU Bycatch data collection and reporting	19
3.2 Challenges related to availability of bycatch data	22
3.3 Implementation of conservation measures to minimise bycatch	24
3.3.1 Marine protected areas	24
3.3.2 Implementation of the Technical Measures Regulation	24
3.3.3 Stakeholder involvement	27
Section 4 Case Studies	28
4.1 Bycatch of Common Dolphin in the Bay of Biscay	29
4.2 Bycatch of Baltic harbour porpoise in the Baltic Sea	32
Section 5 Recommendations	34
References	38

Executive Summary

- **Bycatch of sensitive species in EU waters is a significant threat to marine biodiversity**; it is recognized as such and addressed by a number of international and regional agreements, as well as EU legislation, including the Common Fisheries Policy (CFP), Marine Strategy Framework Directive (MSFD) and Birds and Habitats Directives (BHD).
- **The generally poor conservation status of bycatch sensitive species shows the clear need for urgent action** to address this threat of bycatch.
- **Member States are failing to properly implement their obligations under existing EU legislation** to monitor and take measures to tackle bycatch.
- **Member States have failed to take action to minimize and where possible eliminate bycatch of sensitive species** resulting in a substantial need for new measures to improve protection of sensitive species and habitats.
- There are **obvious weaknesses in both the legislative and institutional frameworks of the EU for addressing bycatch**, in particular the Article 11 process under the Common Fisheries Policy for establishing Joint Recommendations for fisheries measures.
- Despite evidence of high levels of bycatch in specific areas, **MS are not forthcoming with Joint Recommendations** with appropriate and adequate measures to address bycatch and fulfil their obligations under EU legislation.
- Spatial protection in the framework of **Natura 2000 doesn't cover all bycatch sensitive species**. The absence of management plans and fisheries management measures for these sites means that in practice they offer little, if any, benefits in terms of bycatch reduction.
- The **European Commission has been slow and inefficient in reacting to MS' lack of compliance** and has demonstrated a **lack of political will** to use the provisions under the CFP to establish emergency measures, even in urgent cases with strong scientific evidence of the problem.
- **Bycatch data is often of poor quality with significant gaps** and is insufficient to estimate robust confidence intervals around estimates of bycatch rates. Additionally, not all countries have responded to ICES data calls, which leaves important gaps for regional-scale assessments and comparisons.
- **Standardised bycatch data collection and monitoring protocols have not been developed for most regions**, with the exception of the Mediterranean and Black Seas.
- **Shortcomings in the structure and functioning of the Advisory Councils** has created challenges for the engagement of certain stakeholders resulting in advice that is not representative.

MAIN POLICY RECOMMENDATIONS

The European Commission:

- should **initiate infringement procedures against Member States** that fail to fulfil their obligations regarding data collection, and the establishment and implementations of sufficient fisheries management measures to address bycatch of sensitive species.
- should ensure that the upcoming **Action Plan to conserve fisheries resources and protect marine ecosystems include strong provisions on measures to address the bycatch of sensitive species**. The action plan should establish a clear framework with a strict roadmap to ensure proper implementation and enforcement of existing legislation, including the Technical Measures Regulation, and should seek to address the deficiencies with the Joint Recommendation process under the CFP (Article 11).
- should **impose strict deadlines for Member States to submit Joint Recommendations** that are sufficient to implement existing legislation, including to address bycatch of sensitive species in and outside of Natura 2000 sites. Where Joint Recommendations are not forthcoming it should use its powers to apply **emergency measures**, including spatial closures.
- should adopt a delegated act to **improve the specification of technical measures for marine turtles and seabirds**, and work towards including sharks and rays in the TMR.
- must ensure that civil society is able to provide advice and opinions on procedures related to CFP and ensure the **correct functioning of the Advisory Councils**, in particular by ensuring a strictly balanced composition of stakeholders in these ACs.

Member States:

- should **implement dedicated bycatch monitoring programmes** with properly trained observers covering relevant métiers and with sufficient observer coverage to provide robust estimates of bycatch. The data collected must be used to inform sound scientific advice and inform expert decisions from technical bodies.
- must **ensure actual and effective protection in existing and new MPAs by implementing and enforcing fisheries management measures** (e.g., prohibiting or restricting certain fishing gears, mandatory bycatch mitigation measures) **for all sites**.
- should **require the use of REM for controlling compliance with bycatch measures** onboard all EU fishing vessels >12 metres length, and onboard all small-scale vessels (<12 metres length) at high risk of non-compliance with the rules of the Common Fisheries Policy, and those at risk of catching sensitive species.

Introduction

Marine taxa including marine mammals, seabirds, sea turtles, sharks and rays suffer from incidental capture during fishing operations in a range of different fishing gears. This is known as bycatch and is one of the main causes of the observed declines in these taxa, thus representing a significant threat to the conservation status of marine species and negatively impacting marine ecosystems, as well as being undesirable for fishers.

One of the main goals of the 2013 reform of the **Common Fisheries Policy** (CFP) was to significantly improve the environmental sustainability of fisheries in the European Union (EU). Regionalisation was introduced as a new approach to governance and a framework for better cooperation between Member States (MS), and the need for better alignment with EU environmental legislation, such as

the **Marine Strategy Framework Directive** (MSFD) and the **Birds and Habitats Directives** (BHD), was recognised.

The BHD afford strict protection to all seabirds, whales, dolphins, porpoises, and sea turtles, prohibiting their deliberate capture or killing. The CFP and related EU legislation contain various provisions relevant to the bycatch of sensitive species requiring MS to take measures to address the problem.

Specifically, the **Technical Measures Regulation** (TMR) includes the objective to “ensure that incidental catches of sensitive marine species [...] are minimised and where possible eliminated so that they do not represent a threat to the conservation status of these species”.

This report provides an overview of the existing EU bycatch-related legislative framework and policies, with a particular focus on the CFP. It summarises the obligations of MS related to the bycatch of sensitive species under current EU legislation and takes stock of the progress made to date in fulfilling them. It explores more specifically the availability and quality of data necessary to make quantitative assessments of progress towards addressing the bycatch problem, including data collection procedures,

and the adoption and implementation of measures to minimise bycatch. Two case studies are analysed to provide examples of how the legislation has been implemented in practice. On the basis of the observed challenges and shortcomings, policy recommendations are made to improve the implementation and enforcement of the provisions of the CFP, and related legislation, to address the impact of bycatch.

This report was prepared primarily based on desk research, including a literature review, and was supplemented by targeted interviews with NGO representatives related to the case studies presented in chapter 4. It aims to contribute to the better implementation of existing legislation relevant to the bycatch of sensitive species and to inform discussions on the functioning of the CFP.



Bycatch of sensitive species in the EU

2.1 EU LEGISLATION

Several strategic documents are relevant to the bycatch of sensitive species in the EU. The **European Green Deal** is the EU’s main growth strategy to transition to a sustainable economic model. Priorities include protecting biodiversity and ecosystems, and ensuring the sustainability of the blue economy and fisheries sector.

The **EU Biodiversity Strategy for 2030** is the main long-term plan for protecting nature and reversing the degradation of ecosystems. Alongside its target to protect 30 % of the EU sea area—of which 1/3rd (10 % of EU sea area) to be strictly protected—it emphasises the need to minimise, and where possible eliminate, bycatch of sensitive species so that it doesn’t threaten their conservation status, and allows the full recovery of species threatened with extinction, and to improve bycatch data collection.

The strategy also calls for fisheries-management measures to be established for all Marine Protected Areas (MPAs) and commits the European Commission (EC) to develop a new **action plan to conserve fisheries resources and protect marine ecosystems** by 2021. At the time of writing this report this action plan has not yet been released.

The **EU Action Plan for reducing incidental catches of seabirds in fishing gears (EU-PoA)**, adopted in 2012, contains 5 specific objectives and 30 actions with the aim to “minimise and, where possible, eliminate the incidental catches of seabirds by EU vessels operating in EU and non-EU waters, as well as by non-EU vessels operating in EU waters, and reduce bycatch for other seabird species where populations are stable but bycatch is at levels that are cause for concern”.

The **EU-PoA** is non-binding on MS and a review of its implementation in 2021 by BirdLife found that 90% of actions have either not been implemented or their implementation is insufficient¹. According to Birdlife, despite its ambition, the EU-PoA has failed to achieve its objectives.

The **European Community Action Plan** for the Conservation and Management of Sharks was adopted in 2009. Its two specific objectives are “to deepen knowledge both of shark fisheries and shark species and their role in the ecosystem” and “to ensure that directed fisheries for sharks are sustainable and that by-catches of shark resulting from other fisheries are properly regulated”. It includes a set of concrete actions, including, to establish bycatch reduction programmes for the most endangered shark species by relevant international organisations, as well as to limit or prohibit fishing activities in the endangered shark stocks sensitive areas.

The Scientific, Technical and Economic Committee of Fisheries (STECF) conducted a review of the action plan in 2019 and found that hardly any of the objectives had been met, and more effort was needed to effectively manage and protect sharks in Europe. Many species still have no management measures or catch restrictions associated with them, and only the most endangered species have a catch prohibition under the TMR, as well as Total Allowable Catches (TAC) and quota regulations, but this is not linked to any conservation, protection or rebuilding measures.

Table 1
EU legislation relevant to bycatch

Legislation	Relevance for bycatch of sensitive species	Specific provisions
Common Fisheries Policy Regulation (CFP) (EU) 1380/2013	The CFP objectives require the implementation of an ecosystem-based approach to fisheries management to minimise the negative impacts on the marine ecosystem and avoid degradation of the marine environment and coherence with EU environmental legislation, in particular with the achievement of Good Environmental Status (GES) under the MSFD.	Article 7 lists the types of conservation measures that can be adopted, including changes to the characteristics of fishing gears and spatial-temporal restrictions for certain gears. Article 11 (supported by articles 18, 19 and 20) sets out the process for the adoption of conservation measures, which varies depending on whether the measures affect the fishing vessels of other MS. Article 12 sets out the process for the EC to adopt immediately applicable implementing acts (of up to 6 months duration) in case of a serious threat to the conservation of marine biological resources or to the marine ecosystem. Article 13 sets out the process for MS to adopt emergency measures of up to 3 months in duration.
Multianual Management Plan for Fisheries (MAP) (adopted under the CFP)	The CFP empowers the EC to adopt MAPs to provide a framework for the sustainable exploitation of fish stocks and marine ecosystems . MAPs are adopted in the form of a regulation of the Council and the Parliament, on the basis of a proposal by the Commission ² .	CFP Article 9 states that multiannual plans may include “other conservation measures...to minimise the negative impact of fishing on the ecosystem”. This could include measures to address bycatch of sensitive species (supported by Article 10 which defines in more detail the content of multiannual plans).
Technical Measures Regulation (TMR) (EU) 2019/1241	The TMR includes among its objectives to “ensure that incidental catches of sensitive marine species...that are a result of fishing, are minimised and where possible eliminated so that they do not represent a threat to the conservation status of these species” and to have in place fisheries management measures to comply with the Habitats Directive, Birds Directive and the achievement of GES under the MSFD.	Article 4 states that technical measures shall aim to ensure that “incidental catches of marine mammals, marine reptiles, seabirds and other non-commercially exploited species do not exceed levels provided for in Union legislation and international agreements that are binding on the Union” Article 11 prohibits the catching, retention on board, transshipment or landing of marine mammals, marine reptiles and seabirds and for their release when captured. It also allows for MS to put in place bycatch mitigation measures including restrictions on the use of certain gear for vessels flying its flag. Annex XIII requires MS to take the necessary steps to collect scientific data on bycatch of sensitive species. It sets out specific default measures to reduce bycatch of sensitive species and requires MS to submit Joint Recommendation in line with Articles 11 and 18 of the CFP for additional bycatch mitigation measures based on scientific evidence of impacts of fishing gear on sensitive species and to monitor and assess the effectiveness of those measures.
Data Collection Framework Regulation (DCF) (EU) 2017/1004	The DCF requires MS to collect and manage data necessary for fisheries management, including those on the impact that fishing activities have on marine biological resources and marine ecosystems .	Article 5 sets out data requirements in compliance with the CFP and prescribes that these shall include “biological data on all stocks caught or by-caught in Union commercial and...recreational fisheries in and outside Union waters” and “data to assess the impact of Union fisheries on the marine ecosystem in and outside Union waters, including data on by-catch of non-target species”. The DCF empowers the Commission to establish a multiannual Union programme for data collection (EU MAP). The EU-MAP from 2022 (EU) 2021/1167 requires the collection of data on occurrences of incidental catches of all protected sea birds, mammals, reptiles, and fish species, as referred to in Union legislation and under international agreements. It specifies that data shall be recorded during scientific observer trips on fishing vessels, or by the fishers themselves, using logbooks or other appropriate means.

¹ Off the Hook? Reducing seabird bycatch in the EU

² So far, 4 MAPs have been adopted, covering: Baltic Sea (2016), North Sea (2018), Western waters (2019) and Western Mediterranean Sea (2019). The current MAPs do not include technical measures to address bycatch of sensitive species

Table 1 continued

Legislation	Relevance for bycatch of sensitive species	Specific provisions
Marine Strategy Framework Directive (MSFD) 2008/56/EC and (EU) 2017/848	The protection of species sensitive to bycatch is recognised as a requirement for the achievement of Good Environmental Status (GES) under the MSFD.	Under the Descriptor 1 – Biodiversity , the Criterion D1C1 addresses the bycatch of species of birds, mammals, reptiles and non-commercially-exploited species of fish and cephalopods. It stipulates that “Member States shall establish that list of species through regional or subregional cooperation”, with the primary criterion being “The mortality rate per species from incidental by-catch is below levels which threaten the species, such that its long-term viability is ensured”. MS are required to establish the threshold values for the mortality rate from incidental by-catch per species through regional or subregional cooperation.
Habitats Directive (HD) 92/43/EEC	The HD requires MS to monitor incidental mortality of its listed strictly protected species, as well as undertake 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.	Article 12 prescribes a set of general measures aimed at setting a system for strict protection of species listed in Annex IV (strictly protected species, including several groups of bycatch sensitive species, such as cetaceans and marine turtles). Namely, Article 12.4 requires MS to establish a system to monitor the incidental capture and killing of the animal species listed in Annex IV.
Birds Directive (BD) 2009/147/EC	The BD places an overarching obligation on MS to take whatever measures are necessary to maintain or restore their naturally occurring bird populations at a level which corresponds in particular to their ecological, scientific and cultural requirements.	The preamble (6) states that the measures to be taken under BD must apply to different factors which may affect the numbers of birds, such as the impact of human activities, including capture and killing by man.

The threshold values for acceptable bycatch mortality rates mentioned in the MSFD have not yet been determined (Palialexis et al, JRC Technical Report, 2021). Thresholds are currently under development for the North and Baltic Seas (OSPAR and HELCOM indicators), as well as for birds in the Baltic Sea (HELCOM). However, there remains a lack of methods for setting thresholds for the Mediterranean Sea (United Nations Environment Programme Mediterranean Action Plan (UNEP/ MAP) common indicators) for all targeted groups of species. Marine reptiles are not yet covered by OSPAR (for HELCOM it is not applicable since the Baltic Sea does not harbour populations of marine reptiles). For seabirds BirdLife recommends that the threshold mortality rate from incidental bycatch should be 1% of the natural annual adult mortality of the species (BirdLife, 2019).

In May 2022, the EC published a guidance document³ on Article 8 of the MSFD that focuses on the requirement for MS to report on the current environmental status of their marine waters

(Article 8(1)(a)), and the predominant pressures and impacts upon them (Article 8(1)(b)). It includes threshold values for regional indicators, intended to indicate levels at which the long-term viability of a species is at risk.

2.2 REGIONAL AGREEMENTS

The conservation of regional seas and their biodiversity in Europe is the aim of a number of regional agreements, such as the [Barcelona Convention in the Mediterranean Sea](#), [OSPAR Convention in the North-East Atlantic](#), [HELCOM Convention in the Baltic Sea](#), and the [Bucharest Convention in the Black Sea](#), as well as the [Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area \(ACCOBAMS\)](#) and [Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas \(ASCOBANS\)](#) under the Convention on Migratory Species (CMS) family.

The most prominent regional organisation specifically dealing with the management of fisheries in the Mediterranean Sea and Black Sea is the [General Fisheries Commission](#) for the Mediterranean and Black Sea (GFCM).

All these agreements have already recognized the issue of bycatch and are implementing measures to address it directly or indirectly. Bycatch mitigation measures are promoted through different tools, including specific resolutions and recommendations adopted in the frameworks of different agreements, the establishment of active inter-convention collaboration (i.e., active joint ACCOBAMS/ ASCOBANS working group on bycatch or joint workshops organised by OSPAR and HELCOM), as well as the implementation of the joint projects (i.e., MedBycatch project in the Mediterranean). In addition, bycatch of sensitive species is used as one of the indicators of the state of the seas, for example, as part of monitoring of Good Environmental Status (GES) under the Ecosystem Approach process of the Barcelona Convention or monitoring under OSPAR (in collaboration with ICES), HELCOM and other conventions. Furthermore, in the framework of the Barcelona Convention and its Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA/ BD Protocol), action plans were adopted for

5 species/group of species, which include measures to address bycatch (action plans of the monk seal, marine turtles, cetaceans, cartilaginous fish, and SPA/BD Protocol Annex II bird species).

The issue of bycatch is also recognized by the fisheries sector. It is addressed in the GFCM 2030 Strategy for sustainable fisheries and aquaculture in the Mediterranean and the Black Sea, and through 4 Recommendations adopted in 2021 on the mitigation of fisheries impacts for the conservation of cetaceans, sea turtles, seabirds and elasmobranchs, as well as joint activities/projects promoted and implemented by the GFCM Secretariat.

At the global level, cetacean bycatch mitigation is one of the focuses of the International Whaling Commission (IWC), as the leading global body addressing cetacean science, conservation and management. IWC endorsed in 2016 a new Bycatch Mitigation Initiative, aimed to develop, assess and promote effective bycatch prevention and mitigation measures worldwide in cooperation with other organisations, national governments, and fishing communities.

³ European Commission, 2022. MSFD CIS Guidance Document No. 19, Article 8 MSFD, May 2022



2.3

BYCATCH SENSITIVE SPECIES IN THE EU

The Technical Measures Regulation defines ‘sensitive species’ as a species whose conservation status, including its habitat, distribution, population size or population condition is adversely affected by pressures arising from human activities, including fishing activities. Sensitive species, in particular, include species listed in Annexes II and IV of the Habitats Directive, species covered by the Birds Directive and species whose protection is necessary to achieve good environmental status under the Marine Strategy Framework Directive.

Other EU legislation and documents, as well as scientific publications, may refer to ‘**protected, endangered and threatened species**’ or PETS, when referring to species impacted by bycatch.

In the Mediterranean and the Black Seas, measures and actions related to bycatch often refer to ‘**vulnerable species**’, which include the vulnerable species listed in the GFCM Data

Collection Reference Framework (GFCM, 2018a), based on those included in Annex II (endangered or threatened species) and Annex III (species whose exploitation is regulated) of the SPA/BD Protocol of the Barcelona Convention (Annex 1.a), as well as other species considered protected and threatened, especially some sensitive or rare elasmobranch species (Annex 1.b), and benthic species that form vulnerable ecosystems (Annex 1.c).

In this report bycatch sensitive species refer to those species for which bycatch is identified as the most (or one of the most) significant/prevailing threat, and/or species known to be intensively bycaught. Table 2 lists species that have been identified as bycatch sensitive based on the scientific literature and expert knowledge and highlights some of the particularly sensitive populations that need immediate attention and action to address the threat of bycatch.

The report focuses on non-fish species i.e., marine mammals, seabirds, and sea turtles. It is noted however that many shark and ray species suffer from bycatch and these groups contain a high number of threatened species.



Table 2
Selected bycatch sensitive species in the EU⁴

Group/species	Particularly sensitive populations/regions
MARINE MAMMALS⁵	
Harbour porpoise (<i>Phocoena phocoena</i>)	Baltic Sea and Black Sea populations
Common dolphin (<i>Delphinus delphis</i>)	Mediterranean Sea populations - particularly in some areas such as the Alboran Sea and Greek waters; Bay of Biscay population
Common bottlenose dolphin (<i>Tursiops truncatus</i>)	Alboran Sea
Orca (<i>Orcinus orca</i>)	Strait of Gibraltar population
Sperm whale (<i>Physeter macrocephalus</i>)	Mediterranean population
Humpback whale (<i>Megaptera novaeangliae</i>)	Scottish waters population
Minke whale (<i>Balaenoptera acutorostrata</i>)	Scottish waters population
Grey seal (<i>Halichoerus grypus</i>), Ringed seal (<i>Phoca hispida</i> or <i>Pusa hispida</i>), Harbour seal (<i>Phoca vitulina</i>)	Populations in Greater North Sea ecoregion, Celtic Seas ecoregion, Norwegian Sea ecoregion, Iceland Sea, Barents Sea and parts of the Baltic ecoregion
TURTLES	
Loggerhead turtle (<i>Caretta caretta</i>)	Mediterranean Sea population
Green turtle (<i>Chelonia mydas</i>)	Mediterranean Sea population
Leatherback turtle (<i>Dermochelys coriacea</i>)	Mediterranean Sea
SEABIRDS^{6,7}	
Northern fulmar (<i>Fulmar glacialis</i>)	Greater North Sea
Great cormorant (<i>Phalacrocorax carbo</i>)	Celtic Seas & Baltic Sea
Common guillemot (<i>Uria aalge</i>)	Baltic Sea, Celtic Seas, Greater North Sea
Common eider (<i>Somateria mollissima</i>)	Baltic Sea
Northern gannet (<i>Marus bassanus</i>)	Bay of Biscay and Iberian Sea
European shag (<i>Gulosus aristotelis</i>)	Mediterranean Sea
Red-necked grebe (<i>Podiceps grisegena</i>)	Baltic Sea
Black guillemot (<i>Cephus grylle</i>)	Greater North Sea
Balearic shearwater (<i>Puffinus mauretanicus</i>)	Mediterranean Sea & Iberian Sea
Yelkouan shearwater (<i>Puffinus yelkouan</i>)	Mediterranean Sea
Scopoli's shearwater (<i>Calonectris diomedea</i>)	Mediterranean Sea

⁴ This table is not an extensive list of all species and populations affected by bycatch

⁵ As per Vella et al., 2019; ACCOBAMS, 2021; ACCOBAMS, 2022; ASCOBANS, 2022; MMIRC, 2022; Dolman et al., 2020; ICES, 2021

⁶ Species with highest calculated bycatch rate for period 2017-2021 based on available data as per ICES, 2021

⁷ Cortes et al., 2017

2.4

CONSERVATION STATUS OF BYCATCH SENSITIVE SPECIES IN THE EU

The conservation status is measured for all species listed in the Annex II and Annex IV of the Habitats Directive at biogeographical level every 6 years (HD Article 17). For seabirds, trends are measured at the EU and MS levels (BD Article 12). Since 2015 this reporting has been aligned with the reporting under the Habitats Directive.

The latest assessment of the conservation status of marine mammals and marine turtles, which covers the period 2013-2018, shows that certain species

that are particularly sensitive to bycatch, such as the Harbour porpoise (*Phocoena phocoena*) in both the Baltic Sea and Mediterranean, and Common dolphin (*Delphinus delphis*) in the Mediterranean, have significant unfavourable conservation status (Table 3). Compared to the assessments for the previous reporting period (2007-2012) there are few changes. For Harbour porpoise and Loggerhead turtle (*Caretta caretta*) in the Atlantic and Common bottlenose dolphin (*Tursiops truncatus*) in the Mediterranean Sea a lack of data prevented an assessment for the period 2013-2018.

While some bycatch sensitive seabirds have stable, or even increasing, breeding population trends several species such as the Balearic shearwater (*Puffinus mauretanicus*) and Northern fulmar (*Fulmar glacialis*) are decreasing (Table 4).

Conservation Status (CS)	
	Species not present
	Favourable (FV)
	Unfavourable – Inadequate (U1)
	Unfavourable – Bad (U2)
	Unknown (XX)

Trend – CS change between 2007-12 & 2013-2018	
↑	Status has improved
↔	No change in status
↓	Status has worsened
/	Status was previously or is currently unknown

Table 3
Conservation status trend of selected bycatch sensitive marine mammals and marine turtles per biogeographical region, according to MS reporting under Article 17 of the Habitats Directive for the reporting periods 2007-2012 and 2013-2018. Source: EIONET, 2022a

Species	Biogeographical Region			
	Atlantic	Baltic Sea	Black Sea	Mediterranean
MARINE MAMMALS				
Cetaceans				
Common dolphin (<i>Delphinus delphis</i>)	/		↔	↔
Harbour porpoise (<i>Phocoena phocoena</i>)	↔	↔	↑	↓
Common bottlenose dolphin (<i>Tursiops truncatus</i>)	/		/	/
Seals				
Grey seal (<i>Halichoerus grypus</i>)	↔	↑		
Harbor seal (<i>Phoca vitulina</i>)	↑	↔		
Baltic ringed seal (<i>Pusa (Phoca) hispida botnica</i>)		↔		
MARINE TURTLES				
Loggerhead turtle (<i>Caretta caretta</i>)	/			↑
Green turtle (<i>Chelonia mydas</i>)	↔			↔
Leatherback turtle (<i>Dermochelys coriacea</i>)	/			↔



Section 3

Implementation of EU legislation on bycatch: progress, challenges, and recommendations

Table 4

Overview of conservation status of selected bycatch sensitive seabirds at the EU level, for the period 2013-2018, according to the MS reporting under Article 12 of the Birds Directive. Source: EIONET, 2022b

Species	Breeding population size trends		Breeding distribution trend		Notes
	Short term	Long term	Short term	Long term	
Scopoli's shearwater (<i>Calonectris diomedea</i>)	/	↔			Decrease in Malta
Black guillemot (<i>Cephus grille</i>)	↔	↓			Particular LT population decrease in Sweden & UK
Northern fulmar (<i>Fulmar glacialis</i>)	↓	↓	↓	↓	Particular decrease in UK
Northern gannet (<i>Morus bassanus</i>)	↗	↗			-
European shag (<i>Phalacrocorax aristotelis</i>)	↔	↓			Particular decrease in UK
Great cormorant (<i>Phalacrocorax carbo</i>)	↗	↗			Short-term population trend is decreasing in some MS
Red-necked grebe (<i>Podiceps grisegena</i>)	↓	↓			-
Balearic shearwater (<i>Puffinus mauretanicus</i>)	↓	↓			-
Yelkouan shearwater (<i>Puffinus yelkouan</i>)	/	/			-
Common eider (<i>Somateria mollissima</i>)	↓	↓			Particular decrease in Estonia
Common guillemot (<i>Uria aalge</i>)	↗	↗			At the MS level breeding distribution trends are mostly stable

	Not evaluated
↗	Increasing
↔	Stable

↓	Decreasing
/	Unknown

Due to a lack of data, it is not possible to directly assess the relationship between changes in the conservation status and trends and changes in bycatch occurrence and rates for most species. However, the available data is sufficient to demonstrate that in certain areas bycatch is affecting the species in [Table 3](#) and [Table 4](#). The current poor conservation status of many bycatch sensitive species indicates a clear need

for urgent action to address this threat in these areas. The problem of bycatch also needs to be considered in the context of wider pressures on these species e.g., seabird populations in Northern Europe have been badly affected by avian influenza since late 2021 with potentially severe negative consequences for their conservation status thus increasing the urgency for action to address other avoidable pressures, such as bycatch, on these populations.

3.1 BYCATCH DATA COLLECTION AND REPORTING

Member States are responsible for designing and implementing bycatch data collection programmes, which are usually carried out in the wider context of national fisheries data collection. Fishers are required to report data regularly through logbooks, and for certain types of vessels this is complemented by methods such as at-sea observers, electronic monitoring, port observers, and vessel crew observers (ICES, 2021)⁸.

In terms of data collection, in most regions **there is no standardised methodology for collecting bycatch data**, with the exception of the Mediterranean and Black Sea region where the GFCM has adopted in 2021 a manual developed through the MedBycatch project⁹. This document provides a framework for the development and implementation of an efficient, standardised data collection and monitoring system for all vulnerable species in the Mediterranean and the Black Sea, namely elasmobranchs, marine mammals, seabirds, sea turtles, and macrobenthic invertebrates.

⁸ Due to restrictions imposed during the Covid-19 pandemic, in 2020 there was a notable decrease in the amount of at-sea-observer data reported to WGBYC, and a corresponding increase in data from all other observer categories, most notably a significant increase in port-observer and vessel-crew observer sampling

⁹ Monitoring incidental catch of vulnerable species in Mediterranean and Black Sea fisheries: Methodology for data collection



Adopting similar standardised methodologies for bycatch data collection in the other European sea regions would improve the understanding of the bycatch issue at the regional scale and facilitate comparisons between different countries and fisheries

To ensure accurate reporting on bycatch it is essential that fishers and fisheries observers can identify bycaught species. Therefore, dedicating trainings to build capacity on species identification should be an integral part of countries' bycatch data collection efforts.

Data reporting to the EU

In the framework of their obligations under the CFP, MS must collect, manage and submit data, including on bycatch, under the EU's 2017 **Data Collection Framework** (DCF) Regulation. MS collect, store, and manage the data following their national work plans (developed for the periods 2017-2019, 2020-2021 and 2022-2027) and report annually on their implementation. Data collection activities are coordinated through six regional coordination groups (RCGs), which may also prepare regional work plans. National work plans are prepared based on the DCF's Multi-Annual Union Programme (EU-MAP) for the collection and management of fisheries data, including data to support the assessment of fisheries' impact on marine ecosystems, such as incidental catches of all protected seabirds, mammals, reptiles and fish species. Some of the collected data are uploaded to the Joint Research Centre (JRC) databases. JRC extracts, analyses, assesses the quality of data from the databases and prepares it for the STECF working groups. The STECF experts analyse the data and use it to underpin scientific opinions and recommendations that are used in the CFP decision-making process. Once the STECF reports are finalised, the aggregated data is published for further use in scientific analyses and policymaking.

The problem

The approach to the collection of data on bycatch of sensitive species in the EU-MAP is defined in generic and broad terms and it is up to MS to address it properly in their national work plans. The EC doesn't assess or provide specific feedback on whether the work plans are sufficient in terms of coverage of fishing effort and in terms of the métiers and areas with the highest risk to obtain accurate estimates of bycatch. In fact, bycatch data on sensitive species provided by MS is usually of poor quality and inadequate (ICES, 2020a).

A sampling programme on bycatch of sensitive species, by default, requires a dedicated sampling scheme and methodology, different from those applied under the regular DCF reporting on fisheries management data. This means that, in practice, the establishment of any programme on sensitive species bycatch under the DCF may be perceived as additional work or a disruption to regular data collection, thus positioning it as a side issue, rather than an integral part, of fisheries management. Even according to the STECF "the EU MAP remains not well-suited for the dedicated monitoring of rare and protected bycatch in high-risk fisheries since its main focus is the statistically-sound random sampling of all commercial fisheries" (PLEN-21-01).

Data reporting to the International Council for the Exploration of the Sea

Through its annual data calls the International Council for the Exploration of the Sea Bycatch Working Group (ICES WGBYC) (Box 1) collates and analyses information from across the Northeast Atlantic and adjacent sea areas (Baltic, Mediterranean and Black Seas) related to the bycatch of marine mammals, seabirds, turtles, and sensitive fish species in commercial fishing operations. Until 2018 this data was extracted from MS reporting to the EU under the DCF, but, after it was shown that these were largely insufficient to allow robust assessments of the overall effect of EU fisheries on a variety of protected species (ICES, 2019), the process was transformed into specific data calls for countries (both EU and non-EU). Based on the received data, ICES assesses and estimates the level of bycatch of sensitive species and publishes its findings in the scope of annual reports. More specifically, the acquired data is used to provide summaries of bycatch rates¹⁰ by species, gear type and area and estimates of bycatch risk. The collected data is made available through a regional database.

The problem

The quality and extent of current data provided by MS is still insufficient to estimate robust confidence intervals around the estimates of bycatch rates. Challenges persist in terms of appropriate metrics of fishing effort data and sampling designs and protocols. Additionally, not all countries respond to the data calls, which leaves important gaps for regional-scale assessments and comparisons.



International Council for the Exploration of the Sea (ICES)

ICES is an intergovernmental marine science organisation with a goal to advance and share scientific understanding of marine ecosystems and their services. Through strategic partnerships, ICES' work covers the Atlantic Ocean and also extends into the Arctic, the Mediterranean Sea, the Black Sea, and the North Pacific Ocean. A number of technical working groups operate under ICES, including a specific ICES Bycatch Working Group (ICES WGBYC).

ICES plays a crucial role in fisheries data collection, storage, and processing for the EU. It publishes data calls based on a standing request from the European Commission. It also provides advice and information on the impact of fisheries on the ecosystem, including advice on the effects of fishing on a variety of protected and sensitive species (marine mammals, seabirds, etc). In addition, ICES has received a special request for advice from the North-East Atlantic Fisheries Commission (NEAFC) to assess seabird bycatch rates in the NEAFC regulatory area.

¹⁰ Number of specimens from bycatch incidents divided by the number of observed days at sea

3.2

CHALLENGES RELATED TO AVAILABILITY OF BYCATCH DATA

The bycatch data collected by MS has to date been insufficient and ineffective to inform bycatch-related scientific advice properly and comprehensively. This has not only led to poor implementation of existing policies related to bycatch but is also hindering potential improvements to fishing practices and gears that could address the impacts from bycatch on sensitive species.

In general, the quality and scope of the data provided by MS is variable due to factors such as differences in the coverage of ecoregions and/or gear types and the level of monitoring coverage per métier. In addition, most countries rely on DCF sampling programmes to monitor bycatch of sensitive species; these have been shown to be insufficient to obtain robust bycatch estimates¹¹. An adequate distribution and coverage of on-board observers is a crucial factor for an effective and comprehensive data collection programme. As indicated in some scientific literature (Babcock et al., 2011), observer coverage in a fishery with more than a few thousand trips per year should be at least 20% for common species and 50% for rare species in order to accurately quantify bycatch rates. It is also vital that on-board observers are properly prepared and trained in the identification of sensitive species. In some cases, complex reporting forms and unclear procedures can impede full and accurate reporting by fishers.

For example, a survey carried out in Croatia among fishers from three islands revealed that more than half were not aware that entering bycatch data in logbooks is mandatory – their perception was that this data was optional and non-essential¹².

The failure to put into practice proper bycatch data collection programmes can result in poor reporting and misleading official figures. For example, Lithuania has reported only six bycaught birds between 2015 and 2019, whereas data collected by NGOs between 2015 and 2020 showed 909 bycaught birds resulting in an estimate of 1,500-3,000 seabirds bycaught annually in gillnets by the Lithuanian coastal fishing fleet (Morkūnas et al. 2022). The Croatian Directorate of Fisheries has informed that, based on data up to 2020, no incidental catches of sensitive seabird species have been recorded since monitoring started in 2013, neither through logbooks/reports from commercial fisheries nor during monitoring at sea by scientific observers (Directorate of Fisheries, pers. comm.)

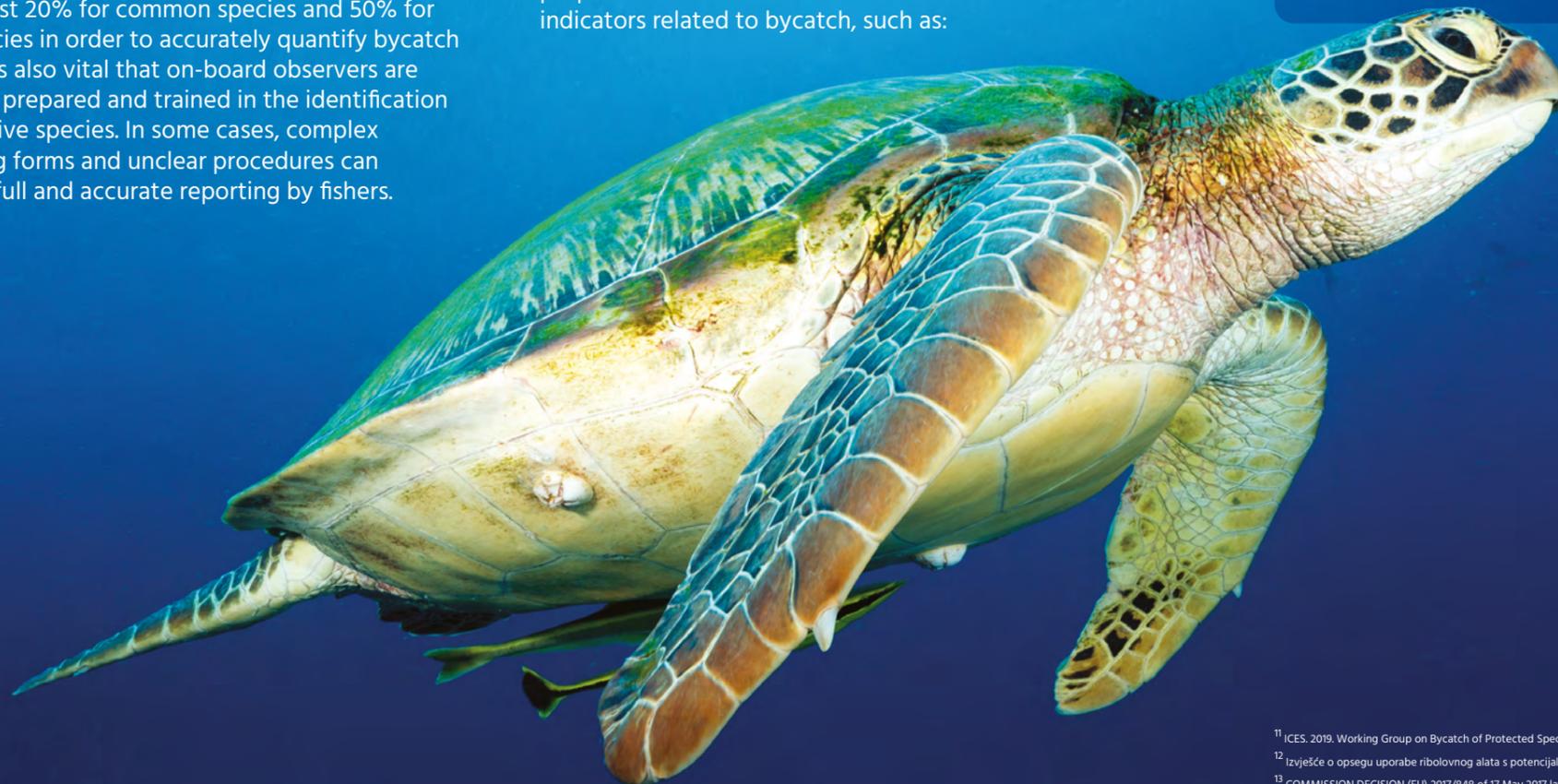
The limitations in terms of data availability and quality not only pose challenges for assessing the effectiveness of existing bycatch reduction measures, but also for proper assessments of different baseline indicators related to bycatch, such as:

Defining acceptable levels of bycatch for different groups and/or populations

As defined in the 2017 EC Decision on criteria and methodological standards on GES¹³ for criteria D1C1, “the mortality rate per species from incidental bycatch is below level which threatens the species, such that its long-term viability is ensured”. This means that data on bycatch rates should be analysed and interpreted in the function of each sensitive species’ viability, according to pre-defined acceptable levels (or rates) of bycatch. In order to understand and define the acceptable level, besides bycatch rate, it is also important to have other information such as species population size and overall mortality in a particular area. Current gaps in bycatch data poses a challenge for defining such thresholds.

Measuring the impact of bycatch in the context of cumulative threats

Although for some sensitive species bycatch might be the predominate threat they currently face, it is certainly not the only one. Bycatch must be considered in a wider context of climate change, changing ocean and different human impacts where species and ecosystems are responding to multiple stressors and dynamic conditions at the same time. The conservation status of a species is the result of cumulative impacts of these threats. Understanding the contribution of bycatch is complex, but also necessary to inform adequate and targeted measures to be implemented and requires good data on bycatch occurrence and rates.



¹¹ ICES. 2019. Working Group on Bycatch of Protected Species (WGBYC). ICES Scientific Reports. 1:51. 163 pp. <http://doi.org/10.17895/ices.pub.5563>

¹² Izvješće o opsegu uporabe ribolovnog alata s potencijalnim utjecajem na morske ptice, te o razmjeru slučajnog ulova morskih ptica. Projekt: LIFE ARTINA – LIFE17 NAT/HR/000594 “Seabird Conservation Network in the Adriatic”

¹³ COMMISSION DECISION (EU) 2017/848 of 17 May 2017 laying down criteria and methodological standards on good environmental status of marine waters and specifications and standardised methods for monitoring and assessment, and repealing Decision 2010/477/EU

3.3

IMPLEMENTATION OF CONSERVATION MEASURES TO MINIMISE BYCATCH

3.3.1 Marine protected areas

Article 11 of the CFP strongly links conservation and fisheries management measures with marine protected areas. At the EU level, the largest network of protected areas is Natura 2000, which aims to ensure the favourable conservation status of species and habitat types listed in the Annexes of the BHD. If these sites are well designed, properly protected, through the establishment of management measures that minimise pressures, and enforced they can provide effective spatial protection.

When it comes to bycatch of sensitive species the HD requires the establishment of Natura 2000 sites to ensure conservation of only two cetacean species: *T. truncatus* and *P. phocoena*, and one marine turtle species, *C. caretta*. Other cetaceans (e.g., *D. delphis*), and other marine turtle species, and all elasmobranchs are therefore out of scope of the spatial marine protection of Natura 2000.

Although in terms of coverage more than 10% of the EU marine area is now designated for marine protection, both under Natura 2000 and as nationally designated areas, these MPAs are not ecologically representative (EEA, 2018) and many lack the necessary conservation objectives and management measures. In fact, WWF found that, for all EU seas combined, only 1.8 % of the entire marine area is covered by MPAs with a management plan (WWF, 2019). Additionally, a recent analysis carried out by Oceana showed that destructive fishing activities are still practised in marine Natura 2000 sites. Namely, over 2.5 million hours of bottom fishing were recorded in 2020, particularly in Germany (Oceana, 2021). Sometimes the pressures inside areas that are designated as MPAs are even higher than outside; a study concluded in 2019 found that 59 % of analyzed European MPAs were commercially trawled at levels higher than non-protected areas, and that the abundance of sensitive species (sharks, rays, and skates) decreased by 69% in heavily trawled areas (Dureuil et al., 2019).

With such a low percentage of existing MPA having management plans and the majority lacking effective management measures to protect the sites, alongside evidence of high levels of disturbance to sensitive species within MPAs, it is clear that spatial protection mechanisms are not currently addressing the bycatch of sensitive species properly and effectively, if at all. Specifically, there is little evidence of targeted fisheries measures related to bycatch mitigation in MPAs (usually defined through Joint Recommendations under the Article 11 of the CFP), and existing bycatch mitigation efforts are often limited to single sites and specific projects and are not implemented at a larger scale.

3.3.2 Implementation of the Technical Measures Regulation

Given that the majority of MPAs in the EU are not well managed, monitored, and controlled and in most cases lack fisheries management measures, and considering that most bycatch sensitive species have wide ranges and are not confined to MPAs, there is a need for effective measures to minimise bycatch both inside and outside these areas. The TMR, which entered into force in 2019, addresses this need to some extent. Annex XIII defines some default mitigation measures to reduce incidental catches of sensitive species and specifies where and when they need to be applied. Still, significant weaknesses have been identified in terms of the content and implementation of the bycatch measures in the TMR (Dolman et al., 2021, Rogan et al., 2021).

For example, bycatch mitigation requirements for cetaceans are linked to vessels of a certain length. Mitigation measures such as acoustic deterrent devices are only required to be used by vessels longer than 12 m, while the establishment of monitoring schemes is only required for vessels over 15 m in length. In reality the vast majority (94%) of European gillnet vessels are smaller than 12 m, thus leaving them outside of the scope of the Regulation (Rogan et al., 2021), and the majority of bycatch events may therefore be left off the radar. In addition, many MS allow recreational gillnet fishing, with the provision that catch is used only for subsistence (Pawson et al., 2008). In some areas (e.g., Sweden), recreational fisheries constitute

a large, but still unknown amount of fishing effort and represent a potential additional source of unmonitored bycatch. This may particularly affect harbour porpoises, a species that inhabits nearshore habitats (Rogan et al., 2021).

For seabirds, the TMR requires the use of default measures—bird scaring lines, weighted lines and night setting—in longlines fisheries where the level of incidental catches of seabirds constitutes a serious threat to the conservation status of those seabirds. However, it leaves it to the discretion of MS to determine what constitutes a “serious threat” and relies on adequate bycatch data collection and reporting in longline fisheries, which is often not happening. As a result, MS are failing to apply these measures in longline fisheries.

For sea turtles only one mitigation measure—turtle excluder device—is specified, and its mandatory use is limited to shrimp trawls in Union waters in the Indian Ocean and the West Atlantic.

Sharks and rays are not addressed in Annex XIII, but the TMR includes a prohibition on catching species listed in its Annex I, which includes a number of shark and ray species. However, a number of shark and ray species protected under regional agreements, such as the Barcelona Convention, are missing from the TMR Annex I, highlighting the need for better alignment.

Another challenge is related to measuring the effectiveness of the TMR. Namely, target thresholds for tackling bycatch of sensitive species are not clearly defined in the Regulation. It refers to levels agreed under Union legislation, however, as already mentioned, the definition of bycatch thresholds under the MSFD is currently under development or is yet to start in some regions. Furthermore, current knowledge on sensitive species bycatch level is inadequate in many cases to assess the impact of bycatch on sensitive species populations. This uncertainty in the data appears to provide MS with the opportunity to continue to avoid taking necessary mitigation action (Dolman et al., 2021). Still, a lack of data should not be an excuse for lack of action, but rather motivate MS to invest additional efforts to collect and analyse quality data on bycatch. In addition, the precautionary principle

should require MS to act where there is a significant risk of bycatch, even where there is a lack of data to demonstrate that bycatch is actually occurring.

The TMR also does not recognize more explicitly the benefits of involvement of already existing and functioning technical bodies which have a good expert/scientific capacity to assist in implementation and reshaping of technical measures (Dolman et al, 2021). For example, there is no specific reference to bodies such as the ICES WGBYC or the joint ASCOBANS and ACCOBAMS working group.

In September 2021, the EC published a first report on the implementation of the TMR. Although the report states that it is too soon to have a full understanding of the effectiveness of this Regulation, several shortcomings can already be identified, particularly related to mitigation of bycatch. Its regionalized approach, which allows MS to play an active role in the creation and implementation of appropriate and effective measures tailored to each region, was found not be used widely for the purpose of protection of sensitive species, such as reducing bycatch. Evidence indicated that monitoring, control and enforcement, especially of sensitive species and habitats, remains inadequate and that large shortcomings exist in terms of monitoring of fisheries impacts. A substantial need for new measures to improve protection of sensitive species and habitats was identified, given that some sensitive species are now completely absent from areas they once inhabited.

The report also showed that MS’s reporting is inadequate, that they are failing to take sufficient measures or initiatives to tackle bycatch, and that they do not demonstrate any willingness to do more. On the contrary, they are doing the minimum, even refusing to apply the regulation in some areas, such as the Mediterranean.



3.3.3 Joint Recommendations to address bycatch

Article 11 of the CFP stipulates that regional cooperation should be exercised to implement conservation and management measures related to fisheries which can affect several MS, and these should be proposed in the form of Joint Recommendations (JR). Regional cooperation is also envisaged to improve the efficiency and effectiveness of data collection through sharing of expertise, data, knowledge, and through regional collaboration and standardisation. To facilitate the application of Article 11 the EC, in 2018, published a working document on the establishment of conservation measures under the CFP¹⁴. The document describes, amongst other things, the requirements for Joint Recommendations for relevant MS, noting in particular that the description of the proposed measures should be “clear, complete and fit for purpose in line with Article 11(1) of the CFP.”

To date, only a few regional groups have initiated discussions pursuant to Article 11 for Natura 2000 sites where several MS have a fishing interest, mostly in the North and Baltic Seas. Two delegated acts were adopted (in 2016 and 2019) covering a total of 18 MPAs in the Danish waters and one in Swedish waters, as well as one delegated act on measures to minimise bycatch of harbour porpoise in the Baltic Sea (EC Delegated Acts Register, 2022).

Additionally, 18 JRs have been proposed by MS regional groups in the framework of the TMR requirements, 7 of which have been integrated into legislation by way of a Commission Delegated Act (EC Report, 2021). Others are pending adoption. In terms of content, the Joint Recommendations put forward a wide variety of measures, needs and approaches. Two of them are related to bycatch of sensitive species, while others aim to include technical measures in new discard plans or include technical measures only.

Although MS have started to propose and implement JRs, much more needs to be done. Measures to reduce bycatch of sensitive species are poorly represented among existing Joint Recommendations. Improvements need to be made in terms of the speed and legal obligations when it comes to developing and agreeing on Joint Recommendations on measures aimed at improving selectivity or restricting fisheries to comply with obligations contained in EU environmental legislation.

3.3.4 Stakeholder involvement

Another important issue related to the procedures under the CFP is quality stakeholder involvement. When the 2013 CFP reform introduced the regionalization approach, it opened a possibility for better involvement of stakeholders through different regional groups, as well as the Advisory Councils (ACs). However, there are several serious challenges related to NGOs participation in the ACs, which were elaborated in the NGOs letter to the EC in July 2020¹⁵. It particularly emphasises inadequacies in the structure of ACs and the implementation of the advisory process. More specifically, in several ACs there is notable imbalance between the representation of different interests – specifically, between industry and Other Interest Groups. In some ACs this issue is reported to be made worse by the biased position and role of the chair. This situation makes it difficult for the NGO representatives to get minority positions accurately reflected in advice text and has led to advice withdrawal or becoming so vague that it is of little use to decision-makers. Such shortcomings pushed many NGOs to already re-evaluate the resources they invest in participating in these fora and several have already withdrawn from certain ACs. A recent revision of the rules on the functioning of the ACs was adopted in December 2021, including the introduction of an independent performance review to be conducted at least once every 5 years for each AC. However, it remains to be seen whether this will translate to real improvements. As pointed out by several NGOs in the public consultation¹⁶, the revision failed to introduce a more balanced composition between sector organisations and other interest groups, ensuring a strictly 50/50 representation when voting.



Advisory Councils

Advisory Councils (AC) were introduced already in 2002, through the Council Regulation (EC) No. 2371/2002 on the CFP (at that time referred to as Regional Advisory Councils or RACs). The purpose of the RACs was to involve stakeholders in the fisheries sector more closely in the decision-making process. Now the former RACs are referred to as ACs, which are mandated to make recommendations and suggestions to the EC and the MS, within their geographical or field of competence. The EC and MS involve them in proposals for management measures (e.g., multi-annual recovery plans, discard plans, etc.) that relate specifically to fisheries in the regions concerned. The Delegated Regulation (EU) No 2015/242 lays down detailed rules on the functioning of the Advisory Councils under the Common Fisheries Policy and was last amended in December 2021 by the Delegated Regulation (EU) 2022/204.

¹⁴ https://oceans-and-fisheries.ec.europa.eu/system/files/2018-06/swd_2018_288_en.pdf

¹⁵ Participation of NGOs in Advisory Councils – NGOs letter to the European Commission, July 2020

¹⁶ Fisheries policy – improvements to the functioning of Advisory Councils (europa.eu)

Case Studies

The following two case studies provide examples of how the provisions of the CFP and the TMR have been applied in practice to address the bycatch of sensitive species and highlight shortcomings in the current implementation of existing legislation, particularly in regard to the development and adoption of Joint Recommendations. The CFP enables the EC and MS to adopt immediately applicable implementing acts and/or emergency measures in the case of a “serious threat” to address intensive bycatch in some areas, which threatens or is assessed as imminent significant threat to sensitive species. In practice however, both have shown a reluctance and a general lack of political will to apply these provisions.

4.1

BYCATCH OF COMMON DOLPHIN IN THE BAY OF BISCAY

THE PROBLEM

The common dolphin (*D. delphis*) is one of the most abundant dolphin species in the North-East Atlantic (Hammond et al., 2021), and due to its ecological importance is considered both a keystone species and an umbrella species (Murphy et al., 2021). It is strictly protected by the Habitats Directive (Annex IV) but is not listed in Annex II and therefore doesn't require the designation of Special Areas of Conservation (SAC) as part of the Natura 2000 network. It is also protected through ASCOBANS. Bycatch in trawl and set net fisheries represents the main threat to the species (ASCOBANS Species Action Plan, 2019).

It is estimated that 5,000-10,000 common dolphins are killed annually in fishing nets in the Bay of Biscay, but only a small portion (10%) of which are found stranded (ICES, 2020b; Peltier et al., 2020). Increases in dolphin strandings on the French coastline of the Bay of Biscay were already recorded in the 1990s, however, significant increases were noted with 800 individuals recorded stranded in 2017 and 1,200 in 2019 (IFAW, 2019). The Pelagis Observatory found evidence of catches by fishing gear on 85% of the dolphin carcasses found on beaches. STECF noted that the number of dolphins stranded in January 2021 was almost double that of January 2020 (STECF 2021), with over 750 dolphins stranded in just one month¹⁷. Based on current rates of bycatch it is estimated that the common dolphin could disappear from the Bay of Biscay within the next 40 years (CCB, 2021).

¹⁷ Observatoire PELAGIS (preliminary unpublished data)

¹⁸ List of NGOs involved: Seas At Risk, Whale and Dolphin Conservation, ClientEarth, Coalition Clean Baltic, Coastwatch Europe, Danish Society for Nature Conservation, Ecologistas en Accion, The Fisheries Secretariat, Fundació ENT, France Nature Environnement, Humane Society International, International Foundation for Animal Welfare, Irish Wildlife Trust, Irish Whale and Dolphin Group, Ligue pour la Protection des Oiseaux, Marine Conservation Society, Natuurpunt, Oceana, OceanCare, Our Fish, Sciaena, Sea Shepherd France, Sustainable Water Network SWAN, Swedish Society for Nature Conservation, Wildlife and Countryside Link Bycatch sub-group, WWF

¹⁹ The NGO complaint covered cetacean bycatch in both the Bay of Biscay and the Baltic

²⁰ According to ICES advice, métiers of concern are: PTM_DEF, PTB_MPD, GTR_DEF, OTM_DEF, PS_SPF, GNS_DEF, and PTM_LPF

NGOs CALL FOR ACTION

MS have a legal obligation under EU law to strictly protect cetaceans and to adopt conservation measures to minimise and where possible eliminate bycatch. Despite evidence of high levels of common dolphin bycatch in the Bay of Biscay MS (France and Spain) failed to take adequate action.

In response, in 2019, a group of 26 environmental NGOs¹⁸ called on the EC to take legal action against 15 EU governments for failing in their obligations, and to adopt emergency measures to immediately address the bycatch problem in the Bay of Biscay¹⁹. It was emphasised that MS failed to meet the obligations to establish a system to monitor incidental capture and killing of cetaceans, and to take adequate measures to protect them. Furthermore, it was also stressed that the minimum requirements for monitoring and reporting under the 2014 Bycatch Regulation (in force at the time) were not complied with, and prescribed mitigation measures were not implemented.

Two measures were proposed by the NGOs:

- Closure of the fisheries responsible²⁰ for common dolphin bycatch in the North-East Atlantic from the start of December 2019 to the end of March 2020 (the period of highest bycatch).
- Year-round monitoring and dynamic mitigation measures.

ICES SCIENTIFIC ADVICE

In 2020 the EC (DG MARE) requested ICES to evaluate the measures proposed by the NGOs and to advise on alternative measures to reduce bycatch of common dolphin in the Bay of Biscay.

ICES published its advice in May 2020 which concluded that the proposed measures were broadly appropriate and adequate. It also proposed alternative measures comprising different combinations of temporal closures of all métiers of concern and the use of pingers on pair trawlers. It noted that the success of these measures is dependent on a fishing effort being reduced and not redistributed. Temporal closures were advised as being the measure most likely to be effective in achieving reduced bycatch mortality in the short term (ICES Advice 2020).

Importantly ICES noted the need for longer-term measures and advised that emergency measures should be considered as a transition towards this. An adaptive management approach with intensified monitoring efforts of common dolphin abundance and bycatch was recommended in order to reliably assess the efficiency of the proposed technical mitigation measures and improve the precision of population abundance, seasonal distribution, and bycatch mortality estimates.

The ICES advice noted that EU legislation requires conservation objectives to be defined more quantitatively. However, many MS have not yet established reference levels for population abundance or bycatch, against which the status of the species can be assessed under the Habitats Directive and the MSFD²¹.

EC AND MEMBER STATES RESPONSE

The EC has not yet officially responded to the NGOs request, and despite the positive assessment from ICES on the proposed measures it seems that the EC is not currently willing to use its powers under CFP Article 12 to establish emergency measures. However, the NGO complaint did trigger the EC to initiate an infringement procedure against France and Spain in July 2020 urging them to take actions to reduce cetacean bycatch. It was stated that despite well-documented evidence of bycatch of cetaceans, MS have not taken sufficient actions to monitor bycatch, nor used the possibilities of the CFP and Habitats Directive to take appropriate measures to protect these species, such as time and area closures of fishing activities. In the meantime, France, Spain, and Portugal initiated the development of a Joint Recommendations to address bycatch in the Bay of Biscay. In October 2020, the Joint Recommendation proposal was submitted by the South Western Waters (SWW) High Level Group, focussing on application of pingers.

In July 2022, considering that France and Spain have not yet taken the necessary measures to address this issue, the EC decided to issue a reasoned opinion to both countries. In the case of continued inaction the EC may decide to refer the case to the Court of Justice of the European Union.

STECF ASSESSMENT AND RESPONSE

In March 2021, following a request from the EC, the STECF assessed the Joint Recommendation and noted that it deviated from the ICES advice, notably by excluding a fisheries closure in one area. STECF concluded that the proposed measures in the Joint Recommendation were not sufficient.

In October 2021, the EC advised the SWW Group to agree on a new Joint Recommendation that includes the fisheries closures as advised by ICES. However, in its response the SWW Group objected to the application of closures (EC, 2022). Currently the issue is being discussed amongst Regional Groups and the SSW Group.



ANALYSIS

Without an impetus to act, MS are slow, or fail completely, to act to address the issue of bycatch of sensitive species. Despite evidence of the occurrence of high levels of bycatch MS were not forthcoming with a Joint Recommendation with appropriate and adequate measures to fulfil their obligations under EU legislation, and there was no intervention by the EC to push them to act. A formal complaint by NGOs was the stimulus for action.

Scientific advice is not fully followed, and measures are weakened by MS during the Joint Recommendation process. Scientific advice from ICES provided a range of measures suitable to minimise the bycatch of common dolphin, however, the Joint Recommendation proposed by MS deviated from the ICES recommendations and was assessed as being insufficient.

The process can become very long as MS can delay the process during the different stages of the Joint Recommendation development. Nearly three years after the submission of the formal complaint and request for emergency measures by NGOs adequate measures to address the bycatch problem are still not being implemented and the contents of the Joint Recommendation are still under discussion.

²¹ EU request on emergency measures to prevent bycatch of common dolphin (*Delphinus delphis*) and Baltic Proper harbour porpoise (*Phocoena phocoena*) in the Northeast Atlantic, May 2020

4.2

BYCATCH OF BALTIC HARBOUR PORPOISE IN THE BALTIC SEA

THE PROBLEM

Several studies indicate that there are two populations of Harbour porpoise (*P. phocoena*) in the Baltic Sea, one in the western Baltic Sea²² and a second one in the proper Baltic Sea (Huggenberger et al. 2002, Wiemann et al. 2010, Galatius et al. 2012). In the 19th and early 20th centuries harbour porpoises were widespread throughout the entire Baltic, however, it is estimated that the number of remaining individuals is at most a few hundred and the population may be facing extinction.

NGOs CALL FOR ACTION

Despite the critical situation of the harbour porpoise in the Baltic Sea and the unsustainable level of bycatch neither MS nor the EC took action to minimise bycatch levels.

The NGO complaint to the EC in 2019²⁴ called for emergency measures to address the bycatch of harbour porpoise in the Baltic Sea comprising:

- Fisheries closures in several Natura 2000 sites
- The use of acoustic deterrent devices (pingers) outside of Natura 2000 areas across the entire range of the Baltic Proper harbour porpoise population
- Improved data collection, monitoring and reporting in gillnet fisheries in the Baltic Sea.

The Baltic Sea subpopulation is classified as Critically Endangered (CR) on the IUCN Red List (HELCOM 2013). The Baltic Sea sub-populations of harbour porpoises are considered to be of Baltic-wide importance in the HELCOM area and are protected through ASCOBANS and listed in Annex II and Annex IV of the EU Habitats Directive.

Porpoises are threatened by a variety of anthropogenic activities, with bycatch in fisheries the greatest concern. Gillnets are thought to be responsible for the majority of bycatch, but porpoises are also occasionally taken in trawls. The level of bycatch was estimated to be unsustainable in 2000 (ASCOBANS 2000)²³.

ICES SCIENTIFIC ADVICE

Following the NGO's call for action, the EC asked ICES to evaluate whether the measures proposed for the Baltic Proper harbour porpoise are necessary and appropriate.

ICES concluded that the proposed measures are appropriate to reduce the bycatch but recommended several spatio-temporal and technical amendments. Namely, ICES advised a combination of spatial-temporal closures and use of pingers. The measures cover static nets (i.e., trammel net, gillnet, and semi-driftnet) as these are the gears with considerably higher bycatch risk for porpoise.

Furthermore, ICES recommended enhanced monitoring in order to be able to better assess the effectiveness of management measures and to increase precision in population abundance and bycatch mortality estimates of the Baltic Proper harbour porpoise.

EC AND MEMBER STATES RESPONSE

In line with the CFP the ICES advice was discussed within the Baltic Sea regional fisheries body (BALTFISH). In December 2020 BALTFISH submitted a Joint Recommendation²⁵ to the EC setting out measures to minimise bycatch of the Baltic porpoise. This Joint Recommendation was supplemented by additional measures detailed in a second submission to the EC in September 2021²⁶.

An assessment by STECF of the Joint Recommendation highlighted some divergence from the ICES advice, while noting that it follows it to a large extent. A notable difference is the exclusion in the Joint Recommendation of one area recommended by ICES to be closed to static net fisheries and that the use of ADD is limited to Nature 2000 sites. STECF doesn't provide a quantitative analysis of the consequences of the divergence from the ICES advice but concludes that the proposed measures will contribute to reducing, but will not eliminate, bycatch of the harbour porpoise.

The contents of the Joint Recommendation has been transposed into EU Delegated Act *Commission Delegated Regulation (EU) 2022/303 of 15 December 2021 amending Regulation (EU) 2019/1241 as regards measures to reduce incidental catches of the resident population of the Baltic Proper harbour porpoise (*Phocoena phocoena*) in the Baltic Sea*²⁷.

In parallel to the development of the Joint Recommendation the EC opened an infringement procedure against Sweden for failure to adequately monitor bycatch of porpoises and to take measures to protect them in its waters.

Despite the adoption of the delegated act one of the individuals interviewed indicated that there is an acknowledgement by the EC that the current measures which only cover Natura 2000 sites are not sufficient and that solutions are needed that cover the entire range of the harbour porpoise. Discussions are ongoing in various forums as to what form these additional measures could take.



ANALYSIS

There is a lack of political will from the EC to apply emergency measures. Despite the harbour porpoise being classified as critically endangered and at real risk of extinction, and hence the urgency of action to address bycatch, the EC didn't use its power under the CFP to apply emergency measures.

Without an impetus to act, MS are slow, or fail completely, to act to address the issue of bycatch of sensitive species (as in the case of bycatch of common dolphin in the Bay of Biscay).

There is a lack of transparency on the reasons for opening or not opening an infringement against MS. Bycatch of harbour porpoise is happening in the waters of several MS yet an infringement procedure was only started against Sweden for comply with its obligations in relation to bycatch of sensitive species.

Scientific advice is not fully followed, and measures are weakened by MS during the Joint Recommendation process. There was some divergence between the measures advised by ICES and what was proposed in the Joint Recommendation and subsequently translated in the Delegated Act.

²² Encompassing the Kattegat, the Belt Sea, the Sound and the German Baltic

²³ HELCOM Red List Marine Mammal Expert Group 2013 – SPECIES INFORMATION SHEET *Phocoena phocoena*

²⁴ The NGO complaint covered cetacean bycatch in both the Bay of Biscay and the Baltic

²⁵ Joint Recommendation of BALTFISH Mitigation measures to prevent bycatch of Baltic Proper harbour porpoise (*Phocoena phocoena*) in the Baltic Sea fisheries – December 2020

²⁶ Supplementing Joint Recommendation of the BALTFISH Mitigation measures to prevent bycatch of harbour porpoise in the Baltic Sea fisheries September 2021

²⁷ Commission Delegated Regulation (EU) 2022/303 of 15 December 2021 amending Regulation (EU) 2019/1241 as regards measures to reduce incidental catches of the resident population of the Baltic Proper harbour porpoise (*Phocoena phocoena*) in the Baltic Sea

Recommendations

General

- The **European Commission** should include **strong provisions on improving monitoring of bycatch of sensitive species and implementing mitigation measures in the upcoming Action Plan to conserve fisheries resources and protect marine ecosystems**. The action plan should establish a clear framework with a strict roadmap to ensure proper implementation and enforcement of existing legislation, including the Technical Measures Regulation, and should seek to **address the deficiencies with the Joint Recommendation process under the CFP** (Article 11).
- **Member States** should dedicate **adequate funding to support the development, testing, and rollout of bycatch mitigation measures**, and to **monitor their effectiveness**, particularly through specific EU funds such as the European Maritime, Fisheries and Aquaculture Fund (EMFAF).
- The **European Commission** must ensure that civil society is able to provide advice and opinions on procedures related to CFP by ensuring it is **properly represented in regional groups and the Advisory Councils** and **ensure the correct functioning of these stakeholder platforms**.

Bycatch data collection

- The **European Commission** should define **minimum data requirements** on bycatch of sensitive species at the EU level and **Member States** should contribute to the development and then **adopt standardized data collection protocols at the regional level**²⁸. Regional protocols should be aligned to facilitate comparisons between regions.
- **Member States** should implement **dedicated bycatch monitoring programmes with properly trained observers** who are specifically assigned to record data on bycatch. These monitoring programmes should include relevant métiers with sufficient observer coverage to provide robust estimates of bycatch.
- The **European Commission**, with the support of relevant scientific bodies (e.g., ICES, STECF), should **assess the adequacy of Member States' data collection programmes for obtaining robust estimates of bycatch**, and require them to be updated accordingly on the basis of the assessment.
- **Member States** should **submit bycatch data in a timely way** to support sound scientific advice from technical bodies such as the ICES Bycatch Working Group (ICES WGBYC) and the joint ASCOBANS and ACCOBAMS Bycatch Working Group.
- **Member States** must ensure that **fishers comply with their reporting obligations** by providing training on the identification of sensitive species and by exploring and **encouraging the use of technology** (e.g., Remote Electronic Monitoring) to improve data collection on bycatch.

Management of Natura 2000 sites

- **Member States** should **designate MPAs for those bycatch sensitive species** for which the designation of Natura 2000 sites is not required by the BHD as part of their efforts to reach the protected area targets set in the EU Biodiversity Strategy to 2030.
- **Member States** must **establish fisheries management measures** (e.g., prohibiting or restricting certain fishing gears, mandatory bycatch mitigation measures) **in all Natura 2000 sites to ensure effective protection of those sites**.
- The **European Commission** must require Member States to act through **regular monitoring and enforcement and put strong compliance systems in place** to ensure effective implementation of fisheries management measures.
- The **European Commission** should **initiate infringement procedures against Member States that fail to establish and properly implement proper measures to address the bycatch of sensitive species**.

Technical Measures

- **Member States** should **not use a lack of data and/or knowledge on bycatch as an excuse for inaction** and should apply **precautionary measures in fisheries and regions where there is a significant risk of bycatch**, while investing in bycatch data collection.
- The **European Commission** should **link the provisions on scientific advice in the Technical Measures Regulation to the existing and active technical bodies under different agreements**, e.g., the ICES WGBYC and the joint ASCOBANS/ACCOBAMS working group.
- The **European Commission** should adopt a delegated act to **improve the specification of technical measures for marine turtles and seabirds** based on the best available scientific knowledge.
- The **European Commission** should impose **strict deadlines for MS to submit Joint Recommendations** that are sufficient to implement existing legislation, including to address bycatch of sensitive species both inside and outside of Natura 2000 sites, and should ensure that the procedures to develop, agree on, and implement Joint Recommendations are quick and smooth. If Member States fail to do this the **European Commission** should use its **emergency powers to close fisheries presenting a high-risk of bycatch as a precautionary approach**.
- The **European Commission** should ensure that a **Joint Recommendation that is adequate to address the long-term threat of bycatch is adopted before the expiry of any emergency measures**.
- The **European Council** and **European Parliament** should **take the opportunity of multiannual management plans for fisheries (MAPs)** to define the necessary measures needed to address bycatch of sensitive species, taking into account regional specificities.
- The **European Commission** should require the **Advisory Councils to play a more active role in the process of establishing conservation measures**, including those to address the bycatch of sensitive species.
- The **European Commission** should take **legal action against Member States which obstruct the submission Joint Recommendations**.

²⁸ As done by GFCM for the Mediterranean and Black Seas (<https://www.fao.org/gfcm/publications/series/technical-paper/640/en/>)



Controlling bycatch

- **Member States** should **require the use of REM for controlling compliance with bycatch measures** onboard all EU fishing vessels >12 metres length, and onboard all small-scale vessels (<12 metres length) at high risk of non-compliance with the rules of the Common Fisheries Policy, and those at risk of catching sensitive species.
- **Member States** should **improve the control of recreational fisheries**, particularly in areas where they may present a significant risk of bycatch.

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