

DG MARE focalpoint: Kenneth PATTERSON

STECF Secretariat / JRC focalpoint: Christoph KONRAD

Chair: Antonello SALA

Review the implementation of the EU regulation on the incidental catches of cetaceans



«He's in Powerpoint-induced coma»

List of experts and observers

Last Name	First Name	Organisation	Email	Job Title	Proposed role	Motivation for meeting attendance	Name in short
BREEN	Patricia	National University of Ireland, Galway	patricia.breen@nuigalway.ie	Biologist	Expert	Excellent opportunity to be involved in revising EU legislation on cetacean bycatch issues	PB
COUPERUS	Bram	Wageningen Marine Research	bram.couperus@wur.nl	Biologist	Expert	Invited as expert on bycatch of protected species (member and former chair of ICES WGBYC)	BC
DEL VESCOVO	Donatella	Università degli Studi Roma 3	donatella.delvescovo@uniroma3.it	Other	Expert	Expert in the field of illegal fishing. Associate Professor in European Union law at the University of Rome 3. Adviser to the Ministry of Agricultural Food and Forestry Policies (MIPAAFT)	DV
DI NATALE	Antonio	Fondazione Acquario di Genova	adinatale@costaedutainment.it	Biologist	Expert	I studied this issue for about 30 years and I chaired some past STECF meetings on the same subject. I also have a good knowledge of the situation in several countries	AN
(*) EVANS	Peter	Bangor University	peter.evans@bangor.ac.uk	Biologist	Expert	Co-chair ASCOBANS-ACCOBAMS Working Group on Bycatch	PE
FORTUNA	Caterina Maria	Marine Institute	fortuna.cm@gmail.com	Biologist	Expert	I have been invited and it is my field of interest	CF
KAPIRIS	Kostas	Hellenic Centre of Marine Research (HCMR)	kkapir@hcmr.gr	Biologist	Expert	Responsible person for the strandings national database enrichment with data from port authorities	KK
(*) KINDT-LARSEN	Lotte	DTU AQUA, National Institute of Aquatic Resources	lol@aqua.dtu.dk	Biologist	Expert	Interactions between Fisheries and Protected, Endangered and Threatened Species	LK
KÖNIGSON	Sara	Department of Aquatic resources, Swedish University of Agriculture Science	sara.konigson@slu.se	Biologist	Expert	To give guidance in Tor 1 and 2	SK
(*) MACLEOD	Kelly	Joint Nature Conservation Committee	kelly.macleod@jncc.gov.uk	Biologist	Expert	As ICES WGBYC Co-Chair	KM

(*) participating in remote

List of experts and observers

Last Name	First Name	Organisation	Email	Job Title	Proposed role	Motivation for meeting attendance	Name in short
PARDALOU	Androniki	Laboratory of Ichthyology, School of Biology Aristotle University of Thessaloniki	nikipardalou@gmail.com	Biologist	Expert	I study the conflicts between dolphins and fisheries, have worked in cetacean monitoring/conservation projects, and since 2015 in the National Program for the Collection of Fisheries Data	AP
PINN	Eunice	Sea Fish Industrial Authority	eunice.pinn@seafish.co.uk	Biologist	Expert	Worked with issue of marine mammal bycatch for over 15 years from biological and legal aspects, and more recently representing the industry	EP
RAYKOV	Violin	Institute of Oceanology-BAS	vraykov@io-bas.bg vio_raykov@abv.bg	Biologist	Expert	Principal researcher on Black Sea fisheries (DCR) and adverse effects on cetaceans/conflicts with fishery. I am principal researcher in pelagic, demersal surveys and biological data (DCR) in Black Sea, experienced in adverse effects of fisheries on cetaceans	VR
SALA	Antonello	CNR	a.sala@ismar.cnr.it	Biologist	Expert	EWG19-07 Chair	AS
ZOLUBAS	Tomas	Marine Research Institute, Klaipeda University	tomas.zolubas@gmail.com	Biologist	Expert	to evaluate implementation of EU regulation on incidental catches of cetaceans	TZ
Observers							
AMAHA OZTURK	Ayaka	ACCOBAMS Scientific Committee and Task Manger on Interaction with Fisheries	ayakamaha@gmail.com		Observer	Vice-Chair of the ACCOBAMS Scientific Committee and Task Manger on Interaction with Fisheries	AO
CARLÉN	Ida	Coalition Clean Baltic	ida.carlen@ccb.se	Biologist	Observer	ASCOBANS representative, expert on the Baltic Sea harbour porpoise	IC
DOLMAN	Sarah	Whale & Dolphin Conservation	sarah.dolman@whales.org	Other	Observer	To contribute to the development of robust cetaceans bycatch measures	SD

Review the implementation of the EU regulation on the incidental catches of cetaceans

Background

Under **article 6** of REGULATION (EU) No 812/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL, Member states are obliged to **provide to the Commission a report** on the implementation of the regulation.

Under **article 8** of the regulation, the Commission is also required to undertake an **assessment of the effectiveness of the regulation** and where appropriate submit an overarching proposal for ensuring the effective protection of cetaceans.

ICES, through the Working Group on Bycatches of Protected Species (WGBYC) provides an **analysis of the MS annual reports** on an annual basis, however it is necessary to undertake an more in-depth and holistic analysis of the overall efficacy of the regulation.

Furthermore, the Commission is in the process of negotiation a **new technical measures framework** that carries over many of the technical provisions laid out in 812/2004 and makes provisions for the **updating of the technical specifications to acoustic deterrent devices** and the possible introduction of **other mitigation measures**.

The proposal also foresees the setting of **maximum by-catch limits** for marine mammals. STECF is asked to provide an overview where such maximum thresholds have been developed and applied.

Primary objectives of the EWG 19-07

The EWG 19-07 is requested to address the following Terms of Reference:

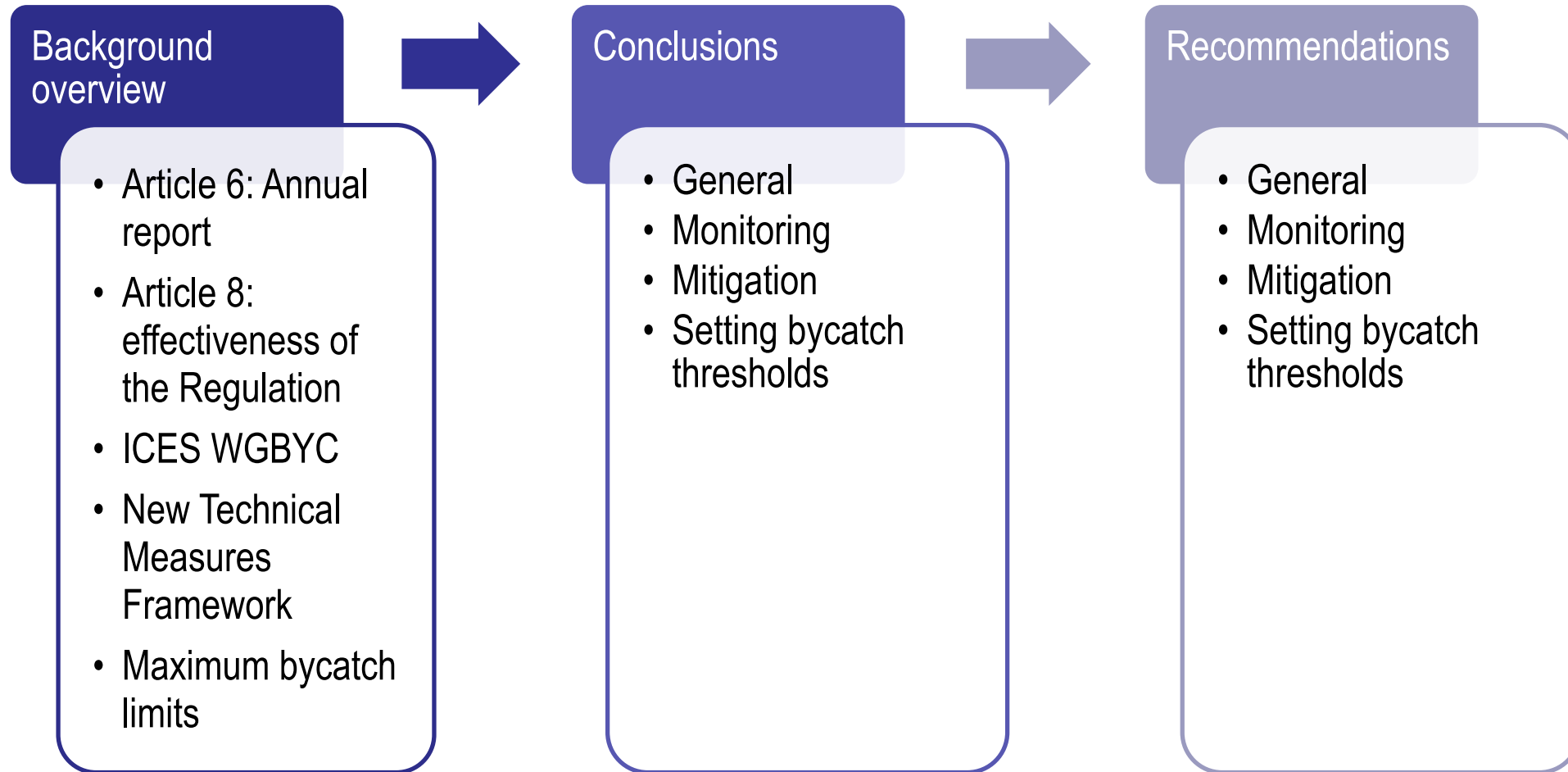
TOR 1. To provide a holistic review of the effectiveness of the current regulation based on ICES advice and other sources of information in terms of mitigating by-catches of cetaceans

TOR 2. To provide observations on potential shortcomings of the regulation and where appropriate, indicate possible revisions to the technical specifications laid out in the regulation

TOR 3. To provide a summary of candidate maximum by-catch thresholds for the species most typically caught as by-catch

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Presentation overview





Overview of the background information

Overview of the background information (1/7)

Article 6: Annual reports

Under Article 6 of Regulation (EU) No 812/2004 of the European Parliament and of the Council, Member states are obliged to provide to the Commission a report on the implementation of the Regulation

Each year, Member States shall send the Commission, by 1 June, a comprehensive annual report on the implementation of Articles 2, 3, 4 and 5 during the previous year

- ✓ Article 2, 3: **Use of acoustic deterrent devices** (see *Annex I*) & Technical specifications and conditions of use (*Annex II*)
- ✓ Article 4, 5: At-sea **observer schemes** (see *Annex III*)

On the basis of the observers' reports [...], the annual report shall include estimates of the **overall incidental catches of cetaceans** [...] and any **research to reduce the incidental capture of cetaceans** in each of the fisheries concerned.

Overview of the background information (2/7)

Article 8: Adaptation to technical progress and additional technical guidance

Under Article 8 of the Regulation, the Commission is also required to undertake an assessment of the effectiveness of the regulation and where appropriate submit an overarching proposal for ensuring the effective protection of cetaceans

1. The following shall be adopted in accordance with the management procedure laid down in Article 30(2) of Regulation (EC) No 2371/2002:

- (a) operational and technical guidance on the **tasks of the observers**, as set out in Article 6;
- (b) detailed rules on **reporting requirements**, as set out in Article 6.

2. Amendments to Annex II which are necessary in order to adapt it to **technical and scientific progress** shall be adopted in accordance with the regulatory procedure laid down in Article 30(3) of Regulation (EC) No 2371/2002.

Overview of the background information (3/7)

ANNEX II Technical specifications and conditions of use of acoustic deterrent devices

Any acoustic deterrent devices used in application of Article 2(1) shall meet one of the following

sets of signal and implementation characteristics:

	Set 1	Set 2
	SIGNAL CHARACTERISTICS	
* Signal synthesis	Digital	Analogue
* Tonal/wide band	Wide band / tonal	Tonal
* Source levels (max-- min) re 1 µPa@1m	145 dB	130-150 dB
* Fundamental frequency	(a) 20 - 160 KHz wide band sweeps (b) 10 kHz tonal	10 kHz
* High-frequency harmonics	Yes	Yes
* Pulse duration (nominal)	300 ms	300 ms
* Interpulse interval	(a) 4 - 30 seconds randomised; (b) 4 seconds	4 seconds
	IMPLEMENTATION CHARACTERISTICS	
* Maximum spacing between two acoustic deterrent devices along nets	200 m, with one acoustic device fixed at each end of the net (or combination of nets attached together)	100 m, with one acoustic device fixed at each end of the net (or combination of nets attached together)

Overview of the background information (4/7)

ICES Working Group on Bycatches of Protected Species (WGBYC)

ICES, through the Working Group on Bycatches of Protected Species (WGBYC) provides an analysis of the MS annual reports on an annual basis, however it is necessary to undertake an more in-depth and holistic analysis of the overall efficacy of the regulation

The WGBYC repeatedly highlight the shortcomings of this Regulation:

- ✓ primarily it does not target métiers with the highest bycatch;
- ✓ the lack of compliance from MS with regards to pinger implementation and reporting

Other appropriate data on cetacean bycatch may also be submitted: data are most commonly linked to at-sea observations carried out for the purposes of fisheries monitoring in accordance with the **EU Data Collection Framework Regulation 2017/1004 (DCF)**. While the collection of protected species bycatch data through the DCF as part of the Multiannual Plan (DC-/EU-MAP) may facilitate targeted sampling of métiers of concern, **the use of non-dedicated protected species bycatch observers** may lead to downward bias in the number of recorded events (WGBYC 2015).

Overview of the background information (5/7)

New technical measures framework: ADDs and mitigation measures

The Commission is in the process of negotiation a new technical measures framework that carries over many of the technical provisions laid out in 812/2004 and makes provisions for the updating of the technical specifications to acoustic deterrent devices and the possible introduction of other mitigation measures

Measures to monitor, manage and mitigate bycatches of sensitive species (including but not limited to cetaceans, birds and turtles) will be subject to regionalised management where MS should prepare Joint Recommendations to the European Commission who will, subject to scientific and technical validation, propose the measures for adoption in EU law

The objectives of the new Regulation will be: to ensure that **incidental catches of sensitive marine species** are minimised and where possible eliminated such that they do not represent a threat to the conservation status of these species; to **minimise negative environmental impacts of fishing on marine habitats** and to put in place management measures for the purposes of complying with the **Habitats, Birds, Water Framework and Marine Strategy Framework Directives**.

Overview of the background information (6/7)

New technical measures framework: maximum by-catch limits

The proposal also foresees the setting of maximum by-catch limits for marine mammals. STECF is asked to provide an overview where such maximum thresholds have been developed and applied

The **Joint Nature Conservation Committee (JNCC)** published a report which details the development of a **Removals Limit Algorithm (RLA)** to set limits to anthropogenic mortality of small cetaceans

In Europe, these issues were considered at a **joint ASCOBANS/IWC workshop (IWC, 2000)**. A simple population dynamics model of a nominal **harbour porpoise population** was used to determine that a **mortality rate of 1.7 % of population size** would allow a population to reach and be maintained at **80 % of carrying capacity** over a very long time-period

This figure of 1.7 % has since been adopted by ASCOBANS, OSPAR and the European Commission but it is a very blunt instrument for setting limits to anthropogenic mortality. At an **ASCOBANS workshop in 2015**, it was generally agreed that the **appropriateness of the bycatch limit of 1.7 % should be reviewed**.

Overview of the background information (7/7)

New technical measures framework: maximum by-catch limits

The proposal also foresees the setting of maximum by-catch limits for marine mammals. STECF is asked to provide an overview where such maximum thresholds have been developed and applied.

The most recent **Europe wide estimates of cetaceans** are from the **SCANS-III survey** – the report with abundance estimates is here: <https://synergy.st-andrews.ac.uk/scans3/files/2017/05/SCANS-III-design-based-estimates-2017-05-12-final-revised.pdf>

The SCANS survey doesn't cover the Med but there was the equivalent survey coordinated by ACCOBAMS

Provided a **summary of candidate maximum by-catch thresholds (e.g., PVA, PBR, or CLA, RLA)** and advice which is best.

EWG 19-07

Conclusions

Conclusions (1/4)

General

Member States are required to report annually to the European Commission on the implementation of Regulation (EU) 812/2004

- **Bycatch of marine mammals is widely observed in European waters** in setnets, purse seines, rod and pole, and trawl gears
- Information provided in the National Reports are often inadequate:
 - ❖ **insufficient monitored effort** of the relevant fisheries to enable any assessment of the overall impact of fisheries on cetaceans
 - ❖ **compliance with the mitigation requirements** appears to be low

Conclusions (2/4)

Monitoring

- The carryover of the **monitoring requirements** of the Regulation into the proposed Technical Measures Regulation in Annex XIII is unhelpful
- **Collection of cetacean bycatch** through the DCF has now been formalised in the EU-MAP
- Whilst the advantage of monitoring all protected species through the DCF is that it has a **large observer coverage**, the focus of the observer scheme is on commercial species and the main observer effort is in trawl fisheries and on other activities on-board
- Implementing protected species bycatch monitoring is not just a matter of adjusting DCF protocols to include cetaceans and other protected species but should include some degree of **reallocation of sampling effort** to cetacean-bycatch relevant fisheries
- Until cetacean bycatch monitoring is being implemented effectively through the DCF, **dedicated monitoring observer schemes** of relevant métiers are to be encouraged and supported

Conclusions (3/4)

Mitigation

- There are valid concerns around the **wide-scale deployment of pingers** in all gillnet fisheries
- The development of **other types of pingers** is constrained by technical specifications
- The Regulation puts forward the use of Acoustic Deterrent Devices (pingers) as the only mitigation measure, whereas there are **more measures possible**

Conclusions (4/4)

Setting bycatch thresholds

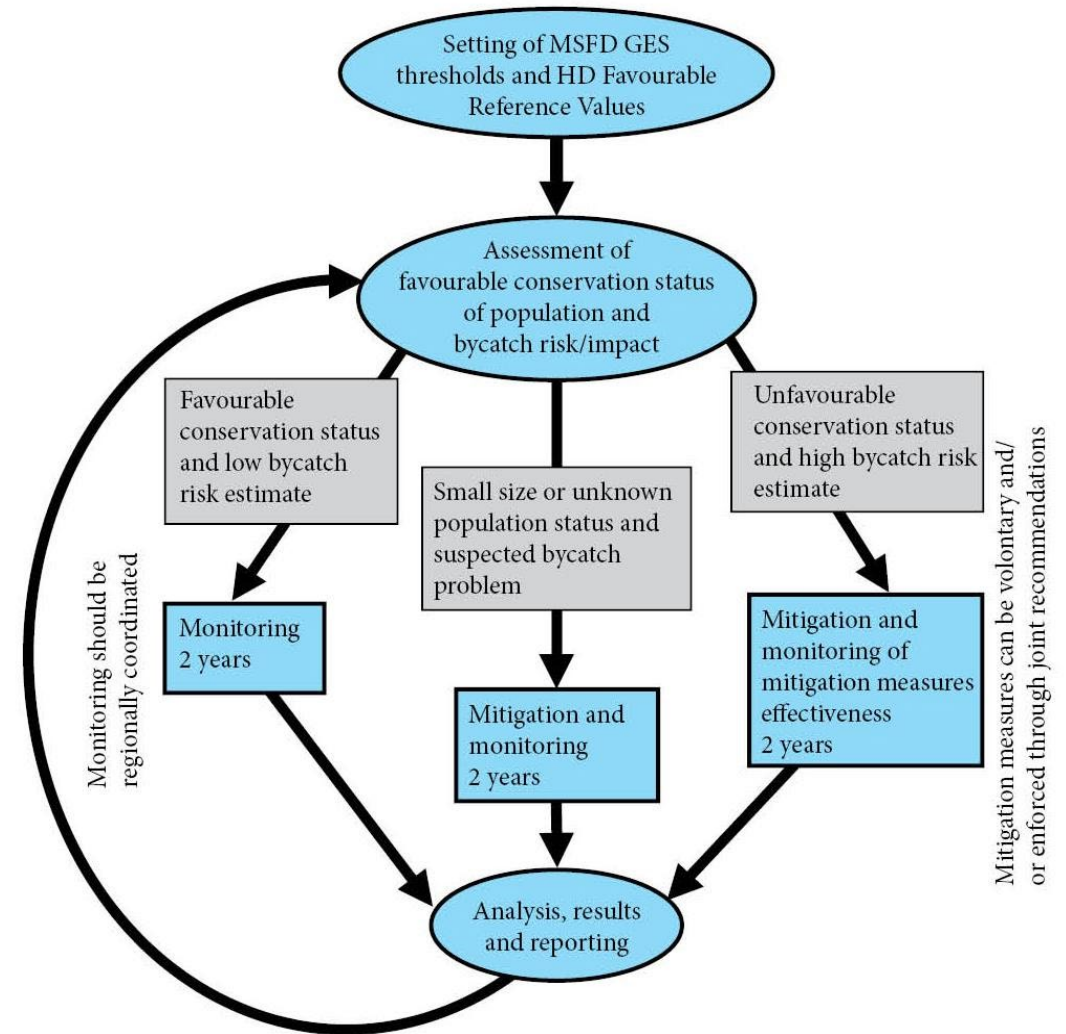
- **Current conservation and management objectives** to be achieved, specified in European environmental legislation, require further definition to be able to be used quantitatively in the modelling approaches to threshold setting
- Candidate maximum bycatch thresholds are **not available for all of the cetacean species** most typically bycaught due to limited population and bycatch data
- A simple “rule of thumb” threshold, such as **ASCOBANS’ 1 %** of best available abundance, is the least data-demanding and can be a valuable starting point for assessments
- Use of thresholds should be as part of an **adaptive management framework** that includes data collections to improve the evidence base on which more robust thresholds can be determined (see the Roadmap)
- More **sophisticated and robust approaches** may be possible for certain species and regions (e.g., PBR, CLA/RLA)

Adaptive management of cetacean bycatch measures

Roadmap

Regular assessment of the effectiveness of mitigation measures is a requirement under the Technical Conservation Measures:

- ❖ to help ensuring an adaptive approach
- ❖ to achieve conservation objectives





EWG 19-07

Recommendations

Recommendations (1/5)

General

- A **systematic risk-based approach** is proposed in which monitoring and mitigation is prioritised in relation to potential estimated impact, rather than the current prescribed approach defining the gears, vessels and areas. This will enable greater flexibility for MS to account for shifts in distribution of both fisheries and highly mobile protected species
- In high-risk areas and fisheries, where these can be identified, the introduction of an approach similar to the **U.S. Take Reduction Plans** is recommended:
 - ❖ outline a suite of approaches and potential measures (more selective gears, real-time closures, and avoidance measures)
 - ❖ plan developed with all relevant stakeholders
 - ❖ in EU, developed within the context of the Regional Advisory Groups

Recommendations (2/5)

Monitoring

- **Reallocation and an increase of sampling effort** to cetacean-bycatch relevant fisheries, at a monitoring effort that would allow calculation of the distribution and rate of expected incidental catch
- A **systematic risk-based approach** is proposed to enable greater flexibility for Member States to react to shifts in the distribution of both fisheries and protected species
- The coverage of Regulation (EU) 812/2004 should be extended to **incorporate all fleet segments**, all vessels regardless of size and all protected species (i.e. to include seabird, turtle, seal, and certain elasmobranchs and protected species of fish) in all EU waters
- **Well-designed, robust monitoring strategies** (increased monitoring in high-risk métiers)
- **Dedicated observer coverage** should be calculated from available information on bycatch. In the absence of information, **5-10 %** seems a reasonable starting point.

Recommendations (3/5)

Mitigation

- More flexibility to use a **wider range of mitigation measures** (effort reduction, closed areas and gear modification) to mitigate cetacean bycatch, in all fisheries, vessel sizes, métiers and regions where bycatch occurs
- Member States to **provide evidence** that these mitigation measures are effective at reducing bycatch
- The **use of pingers** as a mitigation measure should be extended to include all relevant fisheries. A more focused **risk-based approach** is required to mitigation, that would deploy pingers only where necessary (high-risk of cetacean bycatch)
- The development of **other types of pingers** should not be constrained by technical specifications; rather Member States should be required to provide evidence that the devices they are using reduce bycatch.

Recommendations (4/5)

Mitigation

- In high-risk areas and fisheries, the introduction of an **approach similar to the U.S. Take Reduction Plans** is recommended. These plans outline a suite of approaches and potential measures, such as the use of more selective gears, area closures, real-time closures, avoidance measures and move-on rules, that could be implemented to reduce bycatch
- Concurrent monitoring will confirm the effectiveness of the mitigation and/or the “high-risk” status of the fishery while at the same time developing or **improving monitoring schemes** in areas where there is evidence of a level of bycatch that is above thresholds set in order to identify sub-regions or métiers where pingers may be most effectively deployed.

Recommendations (5/5)

Setting bycatch thresholds

- The **European Commission establishes a process** involving policy, scientists, managers and other stakeholders to derive candidate maximum bycatch thresholds for all the cetacean species most typically bycaught
- **Assessments are conducted regularly** (e.g., every 2-3 years) at regional level. This would help the prioritisation of populations in each region for immediate bycatch measures. Bycatch mitigation may be required in parallel to data collection and modelling
- **Conservation objectives and targets**, which are an integral part of these assessments and simulations, be clearly quantified. Existing examples from Catch Limit Algorithm (CLA) and Removal Limit Algorithm (RLA) seem appropriate, as a starting point, but should be further tested and officially agreed
- RFMOs and Member States adopt **roadmaps** that help to define the overarching framework for management strategies.

Summary

Monitoring

Lack of monitoring of the fisheries having potential bycatch of cetacean

- Systematic risk-based approach (roadmap)
- Reallocation and increase of sampling effort (5-10%)
- Well-designed monitoring strategies (increased monitoring in high-risk metiers)
- Incorporate all fleet segments

Mitigation

Acoustic Deterrent Devices (pingers) are the only mitigation measure

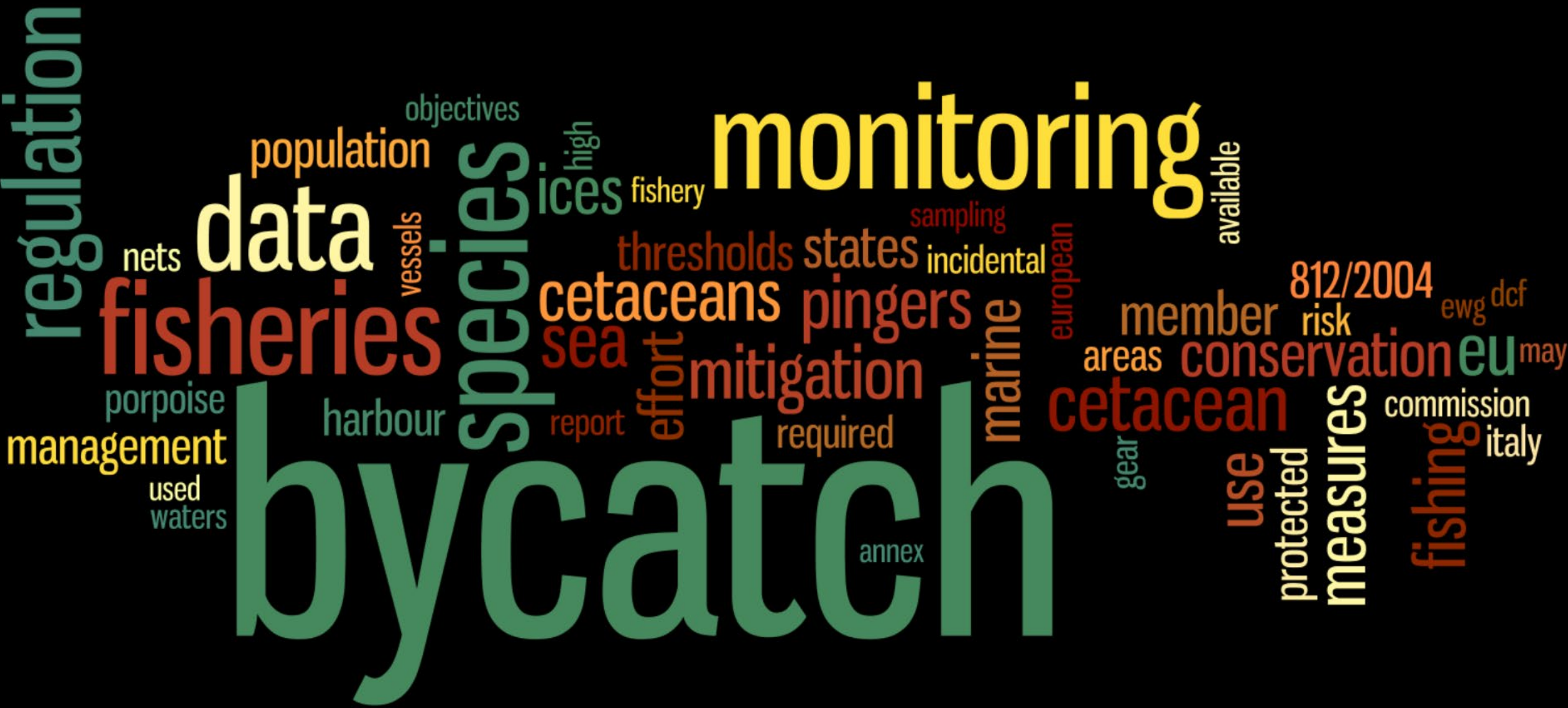
- In high-risk areas and fisheries: U.S. Take Reduction Plans
- More flexibility to use a wider range of mitigation measures
- Extend use of pingers in all relevant fisheries
- MS provide evidence that mitigation measures are effective at reducing bycatch

Thresholds

Candidate maximum bycatch thresholds are not available for all of cetaceans

- EC process involving policy, scientists, managers and other stakeholders
- Assessments conducted regularly (e.g., every 2-3 years) at regional level
- Catch Limit Algorithm (CLA) and Removal Limit Algorithm (RLA) seem appropriate, as a starting point

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Word cloud of the EWG 19-07 report