

Agenda Item 3.1.1

Review of New Information on Threats to Small  
Cetaceans

Bycatch

Report and Recommendations of the  
Working Group

**Document 3.1.1.a  
Rev.1**

**Report of the Bycatch Working Group**

**Action Requested**

- Take note
- Give guidance

Submitted by

Working Group



**NOTE:  
DELEGATES ARE KINDLY REMINDED  
TO BRING THEIR OWN COPIES OF DOCUMENTS TO THE MEETING**



# **Report to ASCOBANS AC21 from intersessional bycatch working group**

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The group did not meet at all during the intersessional period and so all correspondence was by email or using the new forum and discussion facilities on the ASCOBANS website. As in previous years there was very limited participation suggesting that discussions within the group may not be adding much to ongoing more detailed consideration in other fora. It had been previously noted that there was considerable overlap in the remit of this group and the ICES WGBYC (see AC21/Inf.3.1.a for 2014 report) and that it was important to avoid duplication of effort. In addition, bycatch of harbour porpoises in the North Sea is considered in detail in the North Sea Conservation Plan for Harbour Porpoises (AC21/Doc.2.2.1.b). The 4th Meeting of the Steering Group for the Conservation Plan (28 September) will also discuss bycatch.

This report is intended to provide information which may be useful for further discussions at AC21.

## **The group was given the following tasks at AC20**

1. To further explore management procedures relating to bycatch, including those proposed under the SCANS II and CODA projects.
2. To report on, and assist in, projects related to bycatch in which fishermen, gear technologists and cetacean scientists cooperate.
3. To assess the best approaches to address the bycatch problem within fisheries fora.
4. To identify relevant fisheries fora meetings where an ASCOBANS representation would be useful, and promote input as appropriate.
5. To develop active ASCOBANS involvement at relevant RAC and other meetings, and report back from such meetings.
6. To report on national initiatives concerning bycatch mitigation, alternative gear experiments, improvement of bycatch monitoring, etc.
7. To report results of scientific studies on bycatch.
8. To summarize the results of initiatives at, or meetings of other fora such as OSPAR, EC, ICES and HELCOM.
9. To prepare an overview of problem areas (geographical and fishery type) and the status of knowledge of the problem, monitoring and mitigation in place to identify gaps.
10. To produce for the AC a document, summarising any specific observations and limitations concerning EC Reg. 812/2004 with regard to the cetacean conservation objectives of ASCOBANS, taking the information highlighted by each of the ASCOBANS working groups.

### **1. To further explore management procedures relating to bycatch, including those proposed under the SCANS II and CODA projects.**

It is expected that this will be covered by the Working Group for the Further Development of Management Procedures for Defining the Threshold of Unacceptable Interactions which was established at AC20 (AC21/Doc.3.1.1.b). The Joint ACCOBAMS/ASCOBANS Working Group on the

Marine Strategy Framework Directive has also considered indicators related to bycatch within the context of the MSFD (AC21/Doc.13.3).

There are a number of situations in which Member States will need to evaluate bycatch even while working towards the ASCOBANS goal of reducing cetacean bycatch to zero. These include Descriptor 1 within the Marine Strategy Framework Directive on maintaining biodiversity. Within OSPAR, co-ordination in relation to the biodiversity aspects of the MSFD is largely dealt with by the Intersessional Correspondence Group for the Coordination of Biodiversity Assessment and Monitoring (ICG-COBAM). ICG-COBAM has proposed a target that 'The annual bycatch rate of [marine mammal species] is reduced to below levels that are expected to allow conservation objectives to be met'. This does require explicit conservation and management objectives for managing interactions between fisheries and marine mammal populations as requested by ICES since 2009. ICES WGMME (ICES, 2014) reviewed the current status of work on a Bycatch Limit Approach and recommended that the 'European Commission give serious consideration to ICES offer to host a workshop, with the objective of reviewing different mechanisms for determining safe bycatch limits and finalising conservation objectives for a bycatch limit approach that would enable conservation aspiration to be met'.

**2. To report on, and assist in, projects related to bycatch in which fishermen, gear technologists and cetacean scientists cooperate.**

No new information received but see Bordino et al. (2013), Larsen et al. (2013), Larsen et al. (2014) and Mangel et al. (2013) under item 8.

Crosby et al. (2013) describe trials of the 'Banana Pinger' in an inshore set net fishery off Cornwall, UK. The authors concluded that 'the Banana Pinger is suitable for deployment on certain set ups of nets in an inshore set net fishery and shows a strong 'pinger effect' that can be expected to translate into a greatly reduced bycatch. It also gives confidence that habituation is not a problem. There is also strong evidence of a response by dolphins to the Banana Pinger, displayed in the cycling pinger trials. However, the level of reduction in dolphin bycatch that may come from their use is not so clear.'

Also note previous recommendations;

**2013. 9<sup>th</sup> Meeting of the Jastarnia Group. Action Points on by-catch reduction**

**Action Point 12.** Noting the successful application of cod pots in Sweden, Parties should undertake or continue efforts to test and implement pots, traps and other porpoise-friendly gear.

**3. To assess the best approaches to address the bycatch problem within fisheries fora**

Not addressed but see Orphanides and Palka (2013) and Read (2013) under item 8.

Also note previous recommendations;

**2013. 3<sup>rd</sup> Meeting of the North Sea Group.**

**Recommendation 3.** In order to understand the legal implications of landing bycaught porpoises throughout the ASCOBANS Area, the Secretariat should produce a synopsis of relevant

legislation at EU and national levels, as well as information on experiences of working with incentives for their landing (in line with JG9 AP11).

4. **To identify relevant fisheries fora meetings where an ASCOBANS representation would be useful, and promote input as appropriate**

Not addressed.

Also note previous recommendations;

**2013. 9<sup>th</sup> Meeting of the Jastarnia Group. Action Points on by-catch reduction**

**Action Point 10.** A small drafting group comprising Sofia Brockmark, Rüdiger Stempel, Penina Blankett and Geneviève Desportes should develop briefing notes on ASCOBANS positions regarding bycatch, insofar as possible based on any drafts that the North Sea Coordinator may prepare for fora in this area. These should be used by anyone representing ASCOBANS at Baltic RACs and other meetings of relevant EU and Baltic Sea bodies in order to maintain a consistent and appropriate approach.

**Action Point 11.** The ASCOBANS Secretariat should produce a synopsis of bycatch-related regulations of relevance to individual fishermen, especially with regard to legal sanctions for bycatch and incentives for those delivering carcasses with a view to using the carcasses obtained for porpoise conservation research. The ASCOBANS Secretariat, with the support of the ASCOBANS Coordinators should also investigate what incentives are offered to those delivering carcasses, irrespective of whether such incentives are laid down in national legislation.

5. **To develop active ASCOBANS involvement at relevant RAC and other meetings, and report back from such meetings.**

Not addressed, but for North Sea area this falls within the remit of the co-ordinator for the North Sea Conservation Plan for Harbour Porpoises (see AC21/Doc.2.2.1.b).

6. **To report on national initiatives concerning bycatch mitigation, alternative gear experiments, improvement of bycatch monitoring, etc.**

Table 1 lists the actions on investigations of methods to reduce bycatch and implementation of methods to reduce bycatch listed in National Reports to ASCOBANS at AC 20. This information has all been previously discussed at the AC. ICES/WGBYC ( AC21/Inf.3.1.a) also give results of national initiatives.

Concerning bycatch monitoring, EC and Scientific, Technical and Economic Committee for Fisheries subgroups are developing new data collection systems including those for cetacean bycatch. Future European data collection will be now known as EU-MAP (see [http://stecf.jrc.ec.europa.eu/documents/43805/674708/2014-04\\_STECF+14-07+-+Review+of+DCF+part+4\\_JRC89788.pdf](http://stecf.jrc.ec.europa.eu/documents/43805/674708/2014-04_STECF+14-07+-+Review+of+DCF+part+4_JRC89788.pdf)). A group called 'EWG 14-17 Preparations for future data collection under the revised DCF' will meet from 20 -24 October 2014 to focus on preparations for future data collection under the revised Data Collection Framework and will likely include some discussion of regulation 812/2004. The meeting is open to observers (see <https://stecf.jrc.ec.europa.eu/ewg1417> ).

The UK received a derogation from the Commission in July 2013 to allow the use of DDD-03L (with a spacing of not more than 4km) since it does not meet the specifications for pingers listed in Annex II of the Regulation. In April 2014, France received a similar derogation to use DDD-03L with individual authorization for vessels. The pingers have to be used in a way to protect efficiently the cetaceans from the nets but no particular recommendation was given to fishermen on the distance between pingers for the French fleet.

The UK report on implementation of under Council Regulation 812/2004 is available at <http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=18535>. A recommendation that all such national reports should be public and put on a dedicated website to be made available to ASCOBANS and other end-users has been suggested.

The UK Sea Fish Industry Authority has produced a report on the current state of drift net fishing around the UK (<http://www.devonandsevernifca.gov.uk/sitedata/Misc/driftnetreport.pdf>). The report argues against the proposed ban on all drift nets by the European Commission. The report does however acknowledge the difficulty of monitoring and researching the type of drift net fishing that occurs in UK waters and that 'a lack of data on bycatch issues within the fisheries in question does not indicate a lack of impact *per se*.'

#### **7. To report results of scientific studies on bycatch**

There have been a number of recent publications which are listed below.

A synthesis of bycatch in French set net fisheries has been recently reported (Morizur et al., 2014). This report was being edited in August 2014 and will be made available shortly thereafter. It was not available to the group in time for this report but Morizur provided the following synopsis and the full report is expected to be available in time for AC21. The study used all available data in France on bycatch. Several years of observations at sea were used and compared to the fishing effort of a recent year. Harbour porpoise was the main cetacean species affected and the report identifies the fisheries with the greatest bycatch of porpoises. 80 % of the bycatch of harbour porpoise occurred in trammel net fisheries.

Murphy et al. (2013) undertook a detailed review on the distribution, ecology, management and conservation status of common dolphins in the NE Atlantic. This encompassed a review of fisheries interactions, including both operational and biological effects, a summary table on annual estimates of total bycatch rates for the species, and a discussion on fisheries selectivity of age-sex maturity classes. Problem areas (geographical and fishery type) and the status of knowledge of the problem were discussed in the paper.

#### **LIST OF REFERENCES TO SCIENTIFIC STUDIES RELEVANT TO BYCATCH PUBLISHED SINCE AC20**

Allen, Simon J.; Julian A. Tyne; Halina T. Kobryn; Lars Bejder; Kenneth H. Pollock and Neil R. Loneragan. 2014. Patterns of dolphin bycatch in a north-western Australian trawl fishery. PLOS One 9(4) e93178. 12pp

Bilgmann, Kerstin; Guido J. Parra; Nikki Zanardo; Luciano B. Beheregaray and Luciana M. Moller. 2014. Multiple management units of short-beaked common dolphins subject to fisheries bycatch off southern and southeastern Australia. *Marine Ecology Progress Series* 500:265-279.

Bisack, Kathryn D. and Gisele Magnusson. 2014. Measuring the economic value of increased precision in scientific estimates of marine mammal abundance and bycatch: Harbor porpoise *Phocoena phocoena* in the Northeast U.S. gill-net fishery. *North American Journal of Fisheries Management* 34(2):311-321.

Bordino, P.; A. I. Mackay; T. B. Werner; S. P. Northridge and A. J. Read. 2013. Franciscana bycatch is not reduced by acoustically reflective or physically stiffened gillnets. *Endangered Species Research* 21(1):1-12.

Boström, Maria K. ; Krog, Carsten ; Kindt-Larsen, Lotte ; Lunneryd, Sven-Gunnar ; Wahlberg, Magnus. Acoustic activity of harbour porpoises (*Phocoena phocoena*) around gill nets. *Aquatic Mammals* (ISSN: 0167-5427) (DOI: <http://dx.doi.org/10.1578/AM.39.4.2013.389>), vol: 39, issue: 4, pages: 389-396, 2013

Brown, Susie L.; David Reid and Emer Rogan. 2013. A risk-based approach to rapidly screen vulnerability of cetaceans to impacts from fisheries bycatch. *Biological Conservation* 168:78-87.

Crosby, Abby; Tregenza, Nick and Ruth Williams. 2013. The Banana Pinger Trial: Investigation into the Fishtek Banana Pinger to reduce cetacean bycatch in an inshore set net fishery. Cornwall Wildlife Trust. [http://www.cornwallwildlifetrust.org.uk/livingseas/dolphin\\_pinger\\_trial](http://www.cornwallwildlifetrust.org.uk/livingseas/dolphin_pinger_trial)

Larsen, Finn and Ole R. Eigaard. 2014. Acoustic alarms reduce bycatch of harbour porpoises in Danish North Sea gillnet fisheries. *Fisheries Research (Amsterdam)* 153:108-112.

Larsen, Finn; Carsten Krog and Ole Ritzau Eigaard. 2013. Determining optimal pinger spacing for harbour porpoise bycatch mitigation. *Endangered Species Research* 20(2):147-152.

Mangel, Jeffrey C.; Joanna Alfaró-Shigueto; Matthew J. Witt; David J. Hodgson and Brendan J. Godley. 2013. Using pingers to reduce bycatch of small cetaceans in Peru's small-scale driftnet fishery. *Oryx* 47(4):595-606.

Murphy, S., Pinn, E. H. and Jepson, P. D. 2013. The short-beaked common dolphin (*Delphinus delphis*) in the North-eastern Atlantic: distribution, ecology, management and conservation status. *Oceanography and Marine Biology*. In: Hughes, R. N., Hughes, D. J., and Smith, I. P. (eds.); *Oceanography and Marine Biology*. CRC Press, 193-280.

Orphanides, Christopher D. and Debra L. Palka. 2013. Analysis of harbor porpoise gillnet bycatch, compliance, and enforcement trends in the US Northwestern Atlantic, January 1999 to May 2010. *Endangered Species Research* 20(3):251-269.

Read, Andrew J. 2013. Development of conservation strategies to mitigate the bycatch of harbor porpoises in the Gulf of Maine. *Endangered Species Research* 20(3):235-250.

Reeves, Randall R.; Kate McClellan and Timothy B. Werner. 2013. Marine mammal bycatch in gillnet and other entangling net fisheries, 1990 to 2011. *Endangered Species Research* 20(1):71-97.

Slooten, Elisabeth. 2013. Effectiveness of area-based management in reducing bycatch of the New Zealand dolphin. *Endangered Species Research* 20(2):121-130.

Thompson, Finlay N.; Edward R. Abraham and Katrin Berkenbusch. 2013. Common dolphin (*Delphinus delphis*) bycatch in New Zealand commercial trawl fisheries. *PLOS One* 8(5) e64438. 11pp.

**8. To summarize the results of initiatives at, or meetings of other fora such as OSPAR, EC, ICES and HELCOM.**

ICES has produced three reports which are relevant to ASCOBANS consideration of bycatch. Two of these are tabled as information documents. The report of the ICES Working Group on Bycatch of Protected Species (AC21/Inf.3.1.a) and ICES Advice April 2014: Bycatch of small cetaceans and other marine animals – Review of national reports under Council Regulation (EC) No. 812/2004 and other published documents (AC21/Inf.3.1.b). In connection with the North Sea harbour porpoise conservation plan, ICES/WGBYC noted that ‘Following on the work developed by WKREV812 and building off of progress made during WGBYC 2013 meeting (ICES, 2013), a preliminary evaluation of estimated bycatch rates for North Sea Harbour Porpoise was conducted where expected bycatch rates were compared to four different thresholds to evaluate possible risk to this management unit. Without any measure of uncertainty, preliminary results of the bycatch risk approach (BRA) show that North Sea Harbour Porpoise may be near or above sustainable removal levels’.

The Working Group on Marine Mammal Ecology had terms of reference which included ‘Review and report on any new information on population sizes, population/stock structure and management frameworks for marine mammals’. This work was identified as relevant to the MoU between the European Commission and ICES to “provide new information regarding the impact of fisheries on other components of the ecosystem including small cetaceans and other marine mammals...” and to aid “scientific and technical developments in the support of the Marine Strategy Framework Directive, such as by designing marine monitoring and assessment programmes, identifying research needs and methodologies advice”. In addition, discussions involved development of indicators and targets for Good Environmental Status (GES) under the MSFD and the work of OSPAR in this regard.

Also note previous recommendations;

**2013. 9<sup>th</sup> Meeting of the Jastarnia Group. Action Points on by-catch reduction**

**Action Point 9.** The Secretariat and the Chair of the Jastarnia Group should write to ICES requesting statistics on IUU fisheries in the Baltic Sea, broken down by ICES areas. An intersessional working group should be established to evaluate the data received prior to the next meeting of the Jastarnia Group.

**REFERENCES**

ICES/WGBYC. 2014. Report of the Working Group on Bycatch of Protected Species (WGBYC), 4–7 February 2014, Copenhagen, Denmark. ICES CM 2014/ACOM:28. 96 pp.

ICES/WGMME. 2014. Report of the Working Group on Marine Mammal Ecology (WGMME), 10–13 March 2014, Woods Hole, Massachusetts, USA. ICES CM 2014/ACOM:27.234pp

**9. To prepare an overview of problem areas (geographical and fishery type) and the status of knowledge of the problem, monitoring and mitigation in place to identify gaps.**

This is largely covered by ICES/WGBYC. No additional information was received.

**10. To produce for the AC a document, summarising any specific observations and limitations concerning EC Reg. 812/2004 with regard to the cetacean conservation objectives of ASCOBANS, taking the information highlighted by each of the ASCOBANS working groups.**

Relevant documents include the communication from the Commission to the European Parliament and the Council on the implementation of certain provisions of Council Regulation (EC) No 812/2004 laying down measures concerning incidental catches of cetaceans in fisheries and amending Regulation (EC) No 88/98 issued in 2011. Which followed the ICES workshop to Evaluate Aspects of EC Regulation 812/2004 (WKREV812) held in September 2010.

The group received a document from Yvon Morizor with his personal comments regarding 812/2004. There was limited discussion on these but Appendix I is an attempt to combine comments on these observations and identify where these fit with previously agreed recommendations. It is anticipated that there will be further discussion of this.

In addition there are several previous ASCOBANS recommendations which are particularly relevant to these discussions;

**2008. 4<sup>th</sup> Meeting of the Jastarnia Group. Recommendations**

**Recommendation 1.** Bearing in mind the limited measures of EC Regulation 812/2004, Parties are reminded to urgently introduce pingers on fishing gear associated with harbour porpoise bycatch and then phase them out within three years. In the meantime, Parties must develop long-term measures to mitigate bycatch such as alternative fishing gear.

**2012. 8<sup>th</sup> Meeting of the Jastarnia Group. Action Points on by-catch reduction**

**Action Point 6.** Noting that Regulation 812/2004 in its current form does not protect harbour porpoises in the Baltic Sea sufficiently and that according to EC Communication (2011) 578, a revision is not foreseen in the near future and that bycatch mitigation measures will probably in future be addressed in the new Common Fisheries Policy (CFP), Baltic Sea Range States are urged to implement comprehensively and without delay the bycatch mitigation measures laid down in Recommendations 1-4 of the Jastarnia Plan.

**Action Point 7.** Given that the Jastarnia Group has the most specific expertise related to harbour porpoise conservation in the Baltic Sea area and in light of the specific problems and situation in the Baltic Sea, the Secretariat should address the European Commission to urge it to seek the Group's advice when the technical measures framework (TMF) and data collection framework (DCF) of the Common Fisheries Policy (CFP) are being drafted. Parties should also convey the same message to appropriate fora.

**Action Point 8.** Since the preparation of measures to be taken under the new Common Fisheries Policy (CFP) will take time, the Secretariat will also include in the communication to the European Commission the Jastarnia Group's strong call for an urgent amendment of Regulation 812/2004 to address the specific problems in the Baltic Sea.

## **2012. 2<sup>nd</sup> Meeting of the North Sea Group.**

**Action Point 2012-07.** The coordinator will further work on a draft summary table on the type of fisheries that are or are not allowed in particular areas/zones focusing on types of fisheries that are most likely to have harbour porpoise bycatch. North Sea countries will assist in completing this table.

## **2013. 3<sup>rd</sup> Meeting of the North Sea Group.**

**Recommendation 3.** In order to understand the legal implications of landing bycaught porpoises throughout the ASCOBANS Area, the Secretariat should produce a synopsis of relevant legislation at EU and national levels, as well as information on experiences of working with incentives for their landing (in line with JG9 AP11).

**Recommendation 4.** In order to obtain a reliable picture of bycatch, monitoring programmes should include all set net fisheries, particularly vessels <15m. These should cover commercial full- and part-time fisheries and recreational fisheries, as called for in Actions 3 and 4 of the CP. Parties are encouraged to implement such programmes, considering also the latest methodologies that have been developed.

**Recommendation 5.** The NSSG will dedicate attention in the next 1.5 years to collect information that can be of use for the revision of the EU cetacean bycatch regulation. The AC should transmit this information to the relevant EU fora.

**Recommendation 7.** In order to assess the total bycatch of small cetaceans in the North Sea and the effectiveness of bycatch mitigation measures, monitoring programmes or scientific studies are needed in the fisheries where mitigation measures are applied, as is also required in Article 2(4) of EC Reg.812/2004

Table 1. Actions on investigations of methods to reduce bycatch and implementation of methods to reduce bycatch listed in National Reports to ASCOBANS at AC 20.

Country	Investigations of methods to reduce bycatch	Implementation of methods to reduce bycatch
Belgium	None	No additional concrete measures were taken to reduce bycatch.
Denmark	DTU, AQUA conducted research on Fully Documented Fishery onboard gillnet vessels <15 m to test whether electronic monitoring can be used to provide reliable documentation of the fishing operation and the catches onboard gillnet vessels less than 15 m in length.	None
Finland	During the observation scheme 2006-2007 no bycatches were detected or porpoises sighted by the Observers	None
France	<p>A programme named INPECMAM has been funded and agreed between the fishermen, the Iroise sea MPA, University of Brest, the National Natural History Museum and Oceanopolis to work on the by-catch of marine mammals (cetaceans and seals) and the depredation in set net fishery in the Iroise sea. The programme was in course in 2012 and is scheduled to finish at the end of 2013.</p> <p>The observer programs (Filmancet) dedicated to set nets in the Channel was achieved <a href="http://archimer.ifremer.fr/doc/00035/14666/">http://archimer.ifremer.fr/doc/00035/14666/</a> ) and the national program OBSMER dedicated to all the observations at sea has taken in its objectives to include observations of the English channel set net fisheries. The results are now included in the national report for regulation 812/2004. For set net and pelagic trawl fisheries, observers for the EC regulation (n° 812/2004) are deployed for vessels greater than 15 meters and through pilot studies for vessels less than 15 m. However it was not possible to put observers on boats less than 8m for security reason.</p>	Modification of practices in pelagic trawling (headline at 5 m depth)
Germany	PAL (Porpoise ALarm) is a newly developed acoustic warning system for porpoises which imitates the communication sound of porpoises	Pingers in vessels > 12m length according to EU Regulation 812/2004. [Kock, TI]

	<p>in order to protect the animals from fishing nets. The alarm system was developed by Prof.Dr. B. Culik (F3Forschung. Fakten.Fantasie.,Heikendorf) together with the L-3 EALC Nautik (Kiel). The testing phase is carried out together with the Thünen Institute of Baltic Sea Fisheries. Harbour porpoises communicate by clicks and click-trains. Certain click-trains (“upsweep chirp”) have been identified to be used and understood by the animals as a warning sound. The PAL device, a click generator is configured in such a way that it generates corresponding warning clicks with increasing frequency. Initial tests have shown that the animals understand the signal correctly and react with intensive acoustic inspection. In order to test the effectiveness of the device in a field study a project, funded by the BMELV (Federal Ministry of Food, Agriculture and Consumer Protection) is carried out by the Thünen Institute of Baltic Sea Fisheries. The project started in Juli 2012 and runs till December 2013. For the field study the Thünen Institute cooperates with local fishermen and has equipped gillnets with the PAL system over the time period of one year. Based on those results, the study is also aiming at further optimizing the warning system and to enable in a first step, the small-scale production of a prototype. [BMELV/TI]</p>	
Lithuania	None	None
Netherlands	<p>In December 2012 a study to investigate bycatch in the Dutch setnet fishery was started by IMARES and Marine Science &amp; Communication (see below). Within this project, two vessels take part in a pilot trial to test the effect of Acoustic Deterrent Devices (Bananapinger Fishtek UK). The project is funded by the Dutch Ministry of Economics.</p>	<p>In 2012 the Coastal &amp; Marine Union (EUCC) continued its study on bycatch mitigation within the project funded by the European Fisheries Fund: “bycatch mitigation harbour porpoise”. The main aim is to mitigate bycatch of harbour porpoises in the winter set net fishery on cod, turbot and brill in collaboration with the industry. The workability and efficiency of a new pinger (Bananapinger Fishtek UK) and a DDD acoustic device are investigated using both field trials and a behavioural study on a porpoise in captivity at research facility SEAMARCO. The project also aims to: monitor bycatch, facilitate the landing of bycaught porpoises, exchange knowledge, conduct parallel pinger trials and to explore innovative methods to reduce bycatch. The project is a close</p>

		<p>collaboration between the Dutch Fisheries Organisation (Nederlandse Visserbond), the Expert group on set net fishery (Kenniskring Staand want), ten Dutch winter season set net fishermen and the Coastal &amp; Marine Union. The project is funded by the Dutch Ministry of Economics, Agriculture and Innovation (EL&amp;I) and the European Fisheries fund (EFF).</p> <p>In 2012 a short film has been created about the project explaining about the Harbour Porpoise in general, its current threats and highlighting the bycatch. The film further zooms in on the project and explains about set net fisheries, the use of acoustic deterrents and its workability. The film is available on: <a href="http://www.kustenzee.nl/pinger/index.htm">http://www.kustenzee.nl/pinger/index.htm</a> and has been directed by Studio BiB (<a href="http://studiobib.nl">http://studiobib.nl</a>)</p> <p>IMARES Wageningen UR and Marine Science and Communication started a Remote Electronic Monitoring project in December 2012 to investigate bycatch of harbor porpoises by Dutch gill net fishery. This project lasts till 2016 and includes three full years of monitoring of 12 vessels. The project is funded by the Dutch Ministry of Economics.</p>
Poland	<p>In 2011 the Hel Marine Station of the Institute of Oceanography, University of Gdansk, launched a pilot project aimed at testing cod-pots in the Bay of Puck as a possible alternative for gillnets used in catching cods. The current stage of the project is aimed at conducting tests for improvement of fish catch and fishery.</p> <p>The Ministry of the Environment in cooperation with the Ministry of Agriculture and Rural Development received funds from the National Fund for Environmental Protection and Water Management (National Fund) for implementation of the project "Testing of alternative catch tools protecting porpoises, seals and birds from by-catch in the Polish marine areas". It is planned to test under the project whether it is possible to apply: cod pots, gillnets with larger</p>	<p>In 2012 MIR-PIB again implemented the Monitoring Programme for Accidental Catches of Cetaceans (PMPPW, Polish: Program Monitorowania Przypadkowych Połowów Waleni) based on the obligations under the Regulation (EC) 812/2004. In 2012 10 operating vessels in 7 ports were observed. Under the Programme implementation observers stayed in the sea for 129 days, including 70 days on the vessels conducting catches using midwater otter trawls and 59 days on cruises (including 9 days in below 15m vessels) while using gillnets. In 2012 no accidental catch was observed.</p> <p>No porpoises were also observed - either during the participation of the National Marine Fisheries Research Institute in Gdynia (MIR-PIB, employees in cruises on cutters and fishing boats under various</p>

<p>mesh, as well as all aspects of application of at least 2 types of pingers in Poland. In 2012 formal works were conducted over the application and the procedure of determining the contractor. The implementation of the project depends on the closing date of the tendering procedure. The project is planned to be completed in October 2014.</p> <p>There is a similar project planned under the HELCOM BALTFIMPA project – “Fisheries management in the Baltic Sea Protected Areas” . One of the main objectives of the BALTFIMPA project is e.g. to answer the question of the impact of various tools and intensity of commercial fish catches on habitats and species in particular Baltic Sea Protected Areas (BSPA). So far, no research on this subject has been conducted in Poland. The research project is aimed at helping the participating countries, including Sweden, Finland, Poland, Denmark and Russia, test the principles of the protection of the environment and living resources in particular Baltic Sea regions without blocking fisheries, and only, if necessary, limiting the intensity of hunting or particular fish species, and replacing catch tools with tools minimising or eliminating bycatch of birds and marine mammals often observed in fish catches, e.g. with the use of gillnets. The HELCOM BALTFIMPA project is planned to include two parts: introductory and preparatory, the so-called Initial phase. Duration: January 2012 – the end of March 2013, and the main part of the project aimed at testing various catch tools, and preparing decision-making scenarios in the field of fisheries management in certain pilot areas in the Baltic Sea. Duration: July 2013 – the end of 2015.</p> <p>Poland plans to implement the BALTFIMPA project in the selected Natura 2000 pilot area “Ostoja na Zatoce Pomorskiej” (PLH990002), a special area of conservation (PLB990003), being the „habitat” and „bird” Natura 2000 area at the same time. One of the main tasks will</p>	<p>research tasks, also during PMPPW, or during other research cruises in the entire Polish marine area. Polish fishermen also did not report any case of by-catch porpoise.</p>
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	<p>be to test alternative catch tools (cod pots) in terms of the volume of accidental catch of protected fish, bird and mammal species, and the efficiency of catch of target species. It will be also essential to organise meetings with stakeholders when it is planned to analyse various decision-making scenarios in the field of fisheries management in the Natura 2000 area "Zatoka Pomorska". Poland's involvement in the main part of the project will depend on granting funds for the project by the European Commission under LIFE+.</p>	
Sweden	<p>Studies investigating alternative fishing gear such as cod pots and traps for species like pike-perch and herring have been carried out by the Swedish Board of Fisheries (SBF). Since July 2011 this research is conducted by the Department of Aquatic Resources of the Swedish University of Agricultural Sciences (SLU). In 2011 new designs of pots has been developed by several fishing gear manufacturers in collaboration with SLU. These pots were in 2012 tested in an implementation project involving several fishermen as well as in a project conducted by the SLU.</p> <p>A Swedish fishing gear company Carapax has planned a project with funding for the next year to develop a full-scale cod pot fishing method. The project mainly focuses on how to improve the construction of the pot as well solutions for better handling of the pots on board. The outcome of this project may be of interest to evaluate in terms of bycatch reduction as well as consequences for the fisheries.</p>	<p>At the Swedish south coast development and testing of new gear has been conducted. The South Coast Fishing Area (Sydkustens fiskeområde) operates experimental fishing project with seal-proof cod cages in collaboration with local fishermen and scientists at SLU. The goal of the South Coast Fishing Area is to develop future coastal fishing industries by initiating and supporting projects and greater integration between fish nutrition and other nutrition in the region. The business is collaboration between the municipalities of Sölvesborg, Kristianstad, Simrishamn and Ystad.</p> <p>Fishermen in the south of the Kattegat have been offered pingers for free and been successfully using them in the gillnet fisheries for flatfish. Six fishers have been using pingers since March 2011.</p> <p>During 2012, only one fisher, Kattegat, was required to use pinger according to EC Regulation 812/2004.</p>
United Kingdom	<p>The two main species affected by fishing in UK waters are the harbour porpoise and the short-beaked common dolphin. All Reports to the European Commission on activities conducted by the UK under Regulation 812/2004, and under Article 12(4) of the Habitats Directive, provide details of the monitoring work undertaken and estimates of bycatch. A dedicated monitoring scheme is operated by the SMRU, while collaborative links with the three fishery research laboratories in the UK also allow selected</p>	<p>Monitoring of vessels using pingers (DDD-03L) is being continued under the heading of "scientific studies" as required by Regulation 812/2004, but at a relatively low level in comparison to preceding years. A total of 131 hauls with pingers were monitored in 2012. Dolphin and porpoise bycatches are being recorded using GPS positions, as are the locations of DDDs being used on the same fleets which will allow us to assess if the efficacy of these devices changes over time. Seal damage levels to the commercial fish catch is also being routinely recorded.</p>

	<p>observations from the Discard Sampling Programmes to be included in our assessment of cetacean bycatch. The observer scheme relies upon good collaborative links with industry. Nevertheless fisheries regulations were enacted in England and Scotland to ensure that there is also a legal obligation for skippers and owners to take observers when asked to do so. The principle area of concern for cetacean bycatch remains the south-western waters of the Western Channel and Celtic Sea. The situation in the North Sea remains unclear as only limited monitoring has been done since the late 1990s. Monitoring is now being focused on these two areas and as sufficient data is compiled, more robust estimates of current bycatch rates will become available.</p>	<p>The UK's Marine Management Organisation (MMO) and the Marine Scotland Compliance and Enforcement Unit have pinger detection units that are being used to determine compliance at sea. The most accurate bycatch estimates for 2012, taken from the Annex to the UK annual report to the commission on the implementation of regulation 812/2004 in 2012, were of 821 harbour porpoises (<i>Phocoena phocoena</i>: 95% CI 510-1338) and 257 short-beaked common dolphins (<i>Delphinus delphis</i>: 95% CI 132-475) from static net fisheries in the Irish Sea, Western English Channel and Celtic Shelf (ICES divisions VIIaefghj). Caveats apply to these estimates. An estimated 492 seals, thought to be predominately grey seals (<i>Halichoerus grypus</i>: 95% CI 358-700) were also bycaught in this area.</p> <p>The MMO is checking for compliance on the use of acoustic deterrent devices, including use of DDD-03Ls, in the over-12m static net fleet fishing in ICES Division VII as specified in Annex I of the Regulation. The MMO has liaised with industry regarding meeting their obligations under the Regulation. A similar device (DDD-03F) is being used on a voluntary basis on vessels participating in the small winter mid-water trawl fishery for bass (see UK Report under Regulation 812/2004).</p>
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## APPENDIX I

### Observations on Regulation 812/2004

*These suggestions are based on a list from Yvon Morizur but have been edited following suggestions from some members of the group.*

1. COM(2011) 578 final notes in the 'Way Forward' that although monitoring targets, data formats and other issues are subjects of ongoing debate, the Regulation has, according to ICES, "succeeded in providing a much more comprehensive picture of cetacean bycatch in European fisheries". Some Member States have become more knowledgeable about the impacts that their fisheries have on cetaceans, allowing them to streamline the needs for research and protection of cetaceans and improve the implementation of the Regulation. However, as noted by ICES and ASCOBANS data are patchy and it is still not possible to provide total estimates of bycatch mortality.
2. All the national reports should be public and put on a dedicated website to be made available to ASCOBANS and other end-users.
3. In the 812/2004 regulation there is a lack of incentives which exist in other data collection regulations (in the DCF there are grants from UE).
4. The EC regulation should define penalties when countries do not implement correctly the regulation.
5. Fishing efforts as days at sea should be provided on a month basis, ICES division for all fleet segments at risk and concerned with mitigation or observation. The ICES WGBYC 2014 report makes some specific recommendations in this regard.
6. Cetacean bycatch monitoring is insufficient in most fisheries and areas to enable adequate management decisions to be made.

### Mitigation

7. To obtain a greater reduction of bycatch, a more flexible approach is required in the list of fisheries having to use acoustic mitigation. This approach should take into account the likely bycatch rate using a procedure such as the Bycatch Risk Approach suggested recently by ICES (ICES WGBYC 2014). According to that approach the fisheries in which bycatch rate are in excess of specific bycatch rate limits mitigation measures should be proposed.
8. When a fishery is identified for a mitigation necessity, the mitigation should concern all the vessels concerned by the high risk of bycatch. An efficient mitigation requires sometimes all the vessels to be concerned and not only the vessels greater than 12m.
9. The original Annexe 2 which determines the technical characteristics of mitigation systems has been criticized because such specifications don't stimulate research and development towards more efficient devices. Further development work needs to be encouraged to improve pinger durability, ease of use, and reliability. In 2012, amendments were adopted to Regulation 812/2004

(<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0447:FIN:EN:PDF>) which empowered the Commission to amend Annex II by means of delegated acts adopted in accordance with Article 8a, in order to adapt that Annex to technical and scientific progress. This has allowed for example the UK and France to request derogations for the DDD-03L devices which do not meet the specifications of the original Annex II.

10. The Annexe 2 should recommend only a list of devices having an efficiency demonstrated by scientific studies and the list of such devices should be updated periodically. Any randomization in the signal emission should be mentioned for pingers as it is a way to limit potential habituation cetaceans.

11. In some areas, effects of cetacean acoustic mitigation system on seals have to be clearly considered.

12. The situation of nets having a mesh size of less than 80 mm has to be clarified; there are inconsistencies about whether these are considered as required to be included in monitoring schemes or just with the mandatory use of pingers.

#### Monitoring

13. Habitats Directive (Article 12) requires monitoring of bycatch if Member States suspect there may be an issue in addition to any provisions in 812/2004. Particular attention was drawn to the situation with set nets in ICES areas IV and VII and whether observations at sea on set nets should be required under the bycatch regulations.

14. More generally, monitoring programmes and mitigation measures should be directed at fleets believed to have the greatest impact on cetacean populations. Member States, ICES and other bodies should collaborate to maintain an up to date list of such fisheries.

15. A CV of 30% for mortality estimates from monitoring schemes is difficult to obtain. Improved design of monitoring schemes might be based on a target coverage (e.g. a required coverage rate) of fishing effort. Such targets could be defined by ICES and/or STECF.

16. Full details of the design and implementation of the monitoring schemes should be included in annexes of national annual reports.

17. Studies of the long-term efficiency of acoustic deterrent systems (e.g. checking for habituation) should be undertaken for all fisheries where these are used.

18. For small vessels (<15m) studies to estimate bycatch should not be based solely on interviews with fishermen which is known not to be a reliable method. Pilot studies with remote electronic monitoring used in a representative fleet under contract should be further developed and encouraged in all countries as the method could be applied to all vessels.

19. Incentives should be provided for vessels that accept observers.

20. There is a need for ongoing monitoring of the effectiveness of mitigation measures. This is a requirement of the Regulation. Article 2 (4) states that Member States shall take necessary steps to monitor and assess, by means of scientific studies or pilot projects, the effects of pinger use over time in the fisheries and areas concerned.

21. The Regulation should ask for the systematic inclusion of protected species in the reference list of species to be monitored in the all monitoring schemes managed by Member States whatever their frameworks are. This would be in addition to current requirements under the Habitats Directive.

22. Annual reports using a standard format for collection of effort and bycatch data advised by EC and ICES should be asked by the regulation. This has been a long-standing recommendation from ICES.