

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

Report of the Bycatch Working Group

Action Requested

- Take note
- Comment

Submitted by

Bycatch Working Group



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

Report to ASCOBANS AC20 from intersessional bycatch working group

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The group was given the following tasks at AC19

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

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. Overall, there was very limited participation suggesting that discussions within the group may not be adding much to ongoing more detailed consideration in other situations. It was noted at the outset that there was considerable overlap in the remit of this group and the ICES WGBYC and that it was important to avoid duplication of effort. The ICES WGBYC met from 4-9 February 2013 in Copenhagen and the full report is available at http://www.ices.dk/sites/pub/Publication%20Reports/Expert%20Group%20Report/acom/2013/WGBYC/wgbyc_2013.pdf and as [AC20/Doc.3.1.a](#).

The ICES WGBYC was asked to answer 3 requests from the EU concerning Monitoring schemes, ADDs improvements and reference points for bycatch. This work was completed by the ICES WKBYC which from 20-22 March 2013 in Copenhagen. The full report is available at http://www.ices.dk/sites/pub/Publication%20Reports/Expert%20Group%20Report/acom/2013/WKBYC/wkbyc_2013.pdf and as [AC20/Doc.3.1.b](#).

The subsequent advices provided by ICES to the EU can be seen at <http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2013/Special%20requests/>

[EU bycatch%20of%20cetaceans%20and%20other%20protected%20species.pdf](#) and as [AC20/Doc.3.1.c](#).

With respect to harbour porpoises in the North Sea, many of the tasks of the bycatch group are also covered by the report on the implementation of the North Sea Conservation Plan for harbour porpoises ([AC20/Doc.2.2.1.b](#)).

On Task 1, work is underway at the Sea Mammal Research Unit, University of St. Andrews, UK, to further explore management procedure approaches and particularly investigate aspects of deriving mortality limits by spatial areas. This work is ongoing and results are not currently available. However the ongoing work emphasises the need for clearer specification of conservation objectives as outlined in [AC20/Doc.3.1.2.a](#) 'Societal decisions required for the determination of safe bycatch limits for harbour porpoise, common dolphin and bottlenose dolphin'. In particular there is a need to fully specify conservation objectives with an associated level of certainty, the timeframe over which such objectives should be met and the management units for each species that are to be used. Unless these are specified it is difficult to develop useful simulation scenarios.

The UK had requested comments on AC20/Doc.3.1.2.a but given the time constraints of coordinating a response members of the group provided comments individually.

Scheidat et al. (2013) also compared various options for estimating bycatch limits for Netherlands waters. Their conclusions support those of the ASCOBANS bycatch working group in 2012 that 'it seems difficult to justify a simple percentage of population level for a bycatch reference indicator and the 1% or 1.7% of best population estimate currently used may be too high in many situations' ([AC19/Doc.4-06](#)).

As mentioned earlier in paragraph 2 (where references are given) also ICES WKBYC dealt with the subject, responding to the EU request on "How to set bycatch limits and classifying fisheries to risk".

Related to Task 2, James Turner informed the group that Future Oceans (see product range at <http://www.futureoceans.com/acoustic-marine-pinger-product-range>) had made significant progress with the uptake of 10 kHz Porpoise Pingers in the North east USA ground fishery over the past year, where the introduction of the new LED Porpoise Pingers deferred the closure of the Gulf of Maine ground fishery. This resulted in the uptake of over 5000 Pingers in the fishery in early 2013. James drew attention to the evidence supporting the use of 10kHz pingers for reducing harbour porpoise bycatch and that he believed there was scope for greater use of such pingers in Europe.

Mats Amundin (SAMBAH) informed on a new programmable pinger developed and commercialised by Aquatec, called AquaMark 848. It is apparently aimed at deterring dolphins, since it transmits sounds with lower primary frequencies, and considerably higher SL. There does not seem to have been any studies on potential effects. This has waterproof connections so was thought to be more reliable. Specification can be found

here: <http://www.aquatecgroup.com/images/datasheets/aquatec%20group%20-%20aquamark%20848.pdf>

Mats also reminded of the experiments by Ron Kastelein (Kastelein et al. 2008) with high frequency tones, some inaudible to seals, and as effective deterrents as the broadband AquaMark sounds or the traditional, narrow-band, Dukane ~10 kHz sounds. Such HF sounds might be a good alternative for the Baltic region, where the dinner bell effect on seals is a big problem and worry for the fishers.

The same benefit would be gained by Boris Culik's porpoise "alerting" devices (PAL), which should transmit warning calls naturally produced by porpoises and which should stimulate investigation of the animals' surroundings, if it proves being efficient. Trials have been conducted in a pen with a captive porpoise (Fjord&Belt, Denmark) and will be conducted in the field this summer on two German and one Danish vessel (gillnetters) using 220 prototype devices and 220 dummies. For further detail see ICES WGBYC 2013 (Point 8.2) and the German Annual Report (AC20/Doc.13.e, Point 1.1).

Trials with new design of gears was continuing in Sweden, Denmark, Germany and the Netherlands. See the Jastarnia report (AC20/Doc.2.1.1 (WG)) for further detail (Point 5.1.3.1).

- In an experiment in Germany, traps had been issued to some fishermen, they were not successful at first – because deployed wrongly, but a fisherman find out how to deploy them correctly and make the traps work properly.
- In the Netherlands, a seminar "Fish traps in the North Sea - a viable option?" was organised In December 2011 for exchanging information regarding the use of fish traps as alternative fishing gear to prevent porpoise bycatch. Experts from Sweden, France, Germany, UK and Belgium shared their practical experiences and gave fishermen the opportunity to learn more about this fishing technique. Further information can be found in the Dutch Annual Report (AC20/Doc.13g.rev1).
- In Sweden, new designs of pots has been developed by several fishing gear manufacturers in collaboration with SLU (Department of Aquatic Resources of the Swedish University of Agricultural Sciences) in 2011. These pots were in 2012 tested both in an implementation project involving several fishermen and in a project conducted by the SLU. 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 evaluation of the outcome of this project will be of interest both in terms of bycatch reduction and as consequences for the fisheries. (AC20/Doc.13.i (P))

The group did not make any progress on Tasks 3 or 4 in terms of identifying the best ways to approach fisheries fora or where ASCOBANS representation would be most useful.

Task 5 falls within the remit of the North Sea Plan coordinator for the North Sea RAC. Desportes did not attend any RAC meeting since AC 19, but became observer at the Danish Dialogforum and attended its 7th meeting in June. The Danish Dialogforum, under the auspices of the Agrifish Agency, Ministry of Food, Agriculture and Fisheries, provides a platform for a dialog about fisheries and the protection of the Natura 2000 marine areas between the Ministry of Food, Agriculture and Fisheries and the Ministry of Environment, the research institutions, the environmental NGOs and the fisheries organisations, both professional and recreational, with the aim of involving these organisations in the work carried out in the framework of Natura 2000 and concerning fisheries management. Further information can be found in AC20/Doc.14.1.a (Reports of Representation of ASCOBANS at Meetings).

Tasks 6-9 are all addressed to some extent by ICES WGBYC. As previously noted, Regulation 812/2004 does not cover all fisheries in which bycatch may occur. For example, the use of pingers under the Regulation is not applicable to Belgian waters. In a discussion about voluntary pinger use it was noted that the UK Marine Management Organisation has provided guidance to the fishing industry, to support them in meeting their legal obligations under the Regulation (812/2004). The guidance is available from http://www.marinemanagement.org.uk/fisheries/monitoring/regulations_cetaceans.htm

While the UK has considered voluntary pinger use there are also concerns about anthropogenic noise which need to be considered.

Denmark conducted experiments on habituation to pingers in Denmark and Scotland in two different setups, by monitoring the porpoise acoustic behaviour in relation to a single pinger (AQUAmark100). For further detail see ICES WGBYC 2013 (Point 8.2).

In the Netherlands, the workability and efficiency of a new pinger (Bananapinger Fishtek UK) and a DDD acoustic device were investigated using both field trials and a behavioural study on a porpoise in captivity at research facility SEAMARCO (AC20/Doc.13g.rev1).

ASCOBANS is funding a project of the University of Aarhus which investigated long-term effects of pingers, including both possible habituation and habitat exclusion. Results were expected in mid-2014.

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, as a collaboration between the municipalities of Sölvesborg, Kristianstad, Simrishamn and Ystad. > 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. (AC20/Doc.13.i (P))

Denmark started in May 2012 a new REM study in the Baltic Sea involving 16 gillnetters (areas 22 and 23), representing a rather high coverage, and the Netherlands initiated in December 2012 a project where CCTV cameras should be installed on 12 North Sea (mostly IVc) gillnetters (primarily below 15m length) for three years, here also representing a relatively high coverage of the targeted fleet. Additionally it is planned to conduct a pilot study to investigate methods to reduce potential bycatch by equipping two vessels with pingers. Germany also conducted a pilot REM study with three vessels (10-15m) in the Baltic. For further detail on these, see ICES WGBYC 2013 (Point 8.1) and [AC20/Doc.2.1.1](#) (WG), Point 7.3.1.

One of the core indicators being prepared by OSPAR COBAM (OSPAR as one of the regional seas conventions relevant for parts of the implementation of the EC MSFD) is "Mortality of seals and cetaceans due to bycatch" (indicator M-6). Although bycatch occurs in a wide range of species, it should only be specifically assessed for those species for which there is sufficient data. Suggested species for which the target could/should be set, as bycatch exists, are harbour seal, grey seal, harbour porpoise, short beaked common dolphin and striped dolphin. Management units for the relevant cetacean species have been proposed, but further work is needed on target setting, data collection, reporting and assessment procedures. The marine mammal indicators were discussed at ICES MME. A full report of this meeting can be found at <http://www.ices.dk/community/groups/Pages/WGMME.aspx>

Jan Haelters commented that several reports indicate that seasonal harbour porpoise densities in the southern part of the North Sea and the eastern part of the Channel appear to be increasing. These increases have been attributed to an overall southerly shift in distribution consistent with patterns observed between 1994 and 2005 by the SCANS and SCANSII surveys. As there are local areas of high intensity fishing using static gear fishing in these areas, there is a need for monitoring for potential bycatch problems.

Finally Action Point 29 of the Jastarnia Group ([AC20/Doc.2.1.1](#) (WG), Point 7.2.3) recommends that " ASCOBANS should seek to influence existing eco-labelling programmes to take full account of the need to avoid cetacean bycatch in certifying fisheries. ASCOBANS should offer to provide advice to fishermen as to how to achieve this aim. The Terms of Reference of the Bycatch Working Group should be amended to enable them to provide such advice".

References

- M. Scheidat, R. Leaper, M. Heuvel-Greve and A. Winship. 2013. "Setting Maximum Mortality Limits for Harbour Porpoises in Dutch Waters to Achieve Conservation Objectives," *Open Journal of Marine Science*, Vol. 3 No. 3, 2013, pp. 133-139. doi: 10.4236/ojms.2013.33014.
- R. A. Kastelein, W. C. Verboom, N. Jennings, D. de Haan, S. van der Heul. 2008. The influence of 70 and 120 kHz tonal signals on the behavior of harbor porpoises (*Phocoena phocoena*) in a floating pen. *Marine Environmental Research* 66 (2008) 319–326.