Agenda Item 2.2	Implementation of the Harbour Porpoise Action Plans Conservation Plan for Harbour Porpoises in the North Sea
Document 2.2	**Report of the 4th Meeting of the North Sea Group**
Action Requested	• Take note • Give guidance
Submitted by	North Sea Group

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Report of the 4th Meeting of the ASCOBANS Steering Group for the Conservation Plan for the Harbour Porpoise in the North Sea (NSG)

Date: Sunday, 28 September 2014, Gothenburg, Sweden

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1 Welcome and announcement

The chair, P. Evans, welcomed the participants and thanked S. Viker and the Swedish Agency for Marine and Water Management (SwAM) for organising the venue.
Apologies were received from J. Haelters (Belgium), M. Bigan (France) and S. Hassani (France)
The list of participants is given in Annex 2.

1.1 Adoption of agenda

The agenda was adopted without modification and is given in Annex 3.

1.2 Appointment of rapporteur(s)

H. Frisch was appointed as rapporteur, with the participants agreeing to submit summaries of their presentations.

2 Minutes of the 3rd NSG meeting, 26 August 2013, Warsaw

There was no comment arising from the minutes of the 3rd NSG meeting. Every effort, however, should be made to complete and circulate the minutes much more rapidly.
It was noted that the name of the group should, according to its ToR, be North Sea Group (NSG)

3 Implementation Review: Bycatch estimation (Actions 3 and 4)

3.1 New information on bycatch estimates

3.1.1 UK 2013

Presentation - K. Macleod (given by Jamie Rendell):

Achieving the target CV =0.3 for mandatory monitoring of specific fisheries under Regulation 812/2004 is not practical for fisheries with no bycatch or very low rates of bycatch. In the UK, we monitor using the pilot thresholds of coverage. The UK's monitoring of the ≥15m pelagic trawl fleet currently exceeds pilot thresholds of 10%. In the last couple of years, observer effort on pelagic trawls has been reduced (with the exception of the bass trawl fishery where coverage remains at 100%) because no marine mammal bycatch has been recorded in most metiers – this effort has been redirected primarily to <15m static gears (bottom set gillnets) in IV & VII. Monitoring of static gear in VIId (eastern Channel) has been steadily increasing. The UK has no ≥15m driftnets and therefore the Regulation does not apply to the UK fleet in this respect.

There are no targets in relation to coverage or CVs for scientific studies. The UK carries out a number of studies to monitor relevant <15m fisheries and pinger effectiveness (offshore ≥15m gillnets) as per Regulation requirements; but also monitors gillnets in areas not included in the Regulation as part of the commitment to meeting the Habitats Directive. There has been relatively little monitoring of <15m pelagic trawls as these are a much lower risk than the UK's <15m gillnet fisheries in area VII (South West England). The split of monitoring effort of small vessels is 82% static gear in the SW and 18% in the North Sea. Driftnets are also included in the <15m static gear monitoring.

The Regulation only mandates pinger use in gillnet fisheries on vessels of ≥12m. There are 26-31 ≥12m gillnetters identified in the North Sea & SW that should use pingers. However, the Regulation specifies certain net characteristics and seasons as to when they need to be implemented; this adds a layer of complexity to identifying which vessels should use pingers given that the information needed is not documented in log books/official statistics. All ≥15m gillnetters requiring pingers in the SW have them and enforcement is in operation. There are also 5 Spanish vessels registered in the UK; some monitoring on these vessels is carried out and the vessels are known to have pingers. The Spanish Fisheries inspectorate is responsible for enforcement.

In 2013, estimates of bycatch for harbour porpoise were 1600-1900 animals for the entire UK gillnet fleet (over and under 15m). The higher estimate assumes no pingers are used whereas the lower estimate assumes full implementation of pingers as prescribed by the Regulation 812/2014. The difference between these figures demonstrates pinger effectiveness (total bycatch in pingered sector is ~300 animals) but also highlights that most bycatch occurs in fisheries that are out-with the Regulation. The 2013 estimates are higher than in previous years. There are a number of reasons for this; i) the 2013 estimate relates to the entire UK gillnet fleet whereas previous estimates have related to SW England only'; ii) porpoise bycatch rates may have increased, at least in Subarea VII over the past decade but this may be partly linked to; iii) in recent years the monitoring programme has observed porpoise bycatches in some fisheries (e.g. drift nets and light gillnets for flatfish such as sole) which in previous years we may not have sampled at a level that would lead to a high likelihood of observing a bycatch; and finally, iv) porpoise density may have increased.

3.1.2 France: Synthesis of bycatch information from set nets between 2008-2013, with focus upon the North Sea

Presentation - Y. Morizur:

All the years available were used for the analysis. And the year 2012 was used for fishing effort in order to raise the samples. The estimate of bycatch of porpoise for the whole of France gives 620 porpoises per year for non-pingered nets with 80% of bycatch in trammel nets for monkfish and for sole.

The specific estimate for the French fleet in the North Sea area gives a total of about 260-270 porpoises. An average estimate of 150 porpoises/year was obtained for area IVc (south of North Sea with a bycatch rate of 0,052 porpoise/day in the sole net fishery) and an estimate of 110 porpoises/year was obtained for ICES area VIIe. In VIId, the estimate is very low (close to zero).

The features of porpoise bycatch are: single bycatch in the depth range 20-115m, and depth ranges of 20-30m for IVc and VIId (4 events) and 80-110m in VIIe (11 events). No bycatch was observed in the middle of the Channel (longitudes 4°W to 1°E) with, significantly, zero bycatch in spider crab nets and sole nets of that sub-area.

Discussion on 3.1.1 and 3.1.2

Bycatch picture in the Channel

There is a zero bycatch in GNS[1] spider crab and GTR sole fisheries. This could be due to a low coverage of hauls, but Y. Morizur reported that bycatch rates were anyway clearly close to zero.

There is a spatial segregation of common dolphin and porpoise, likely corresponding to the seasonal variations in porpoise density. Clearly the Channel remains an area that one should focus attention upon.

Increase in the UK bycatch data and the bycatch estimate in 2013

The 2013 UK bycatch estimate (1600-1900 porpoises) was higher than the UK previous estimates (ca. 800 a year). UK acknowledged that this could be due to more extensive monitoring coupled with the fact that bycatch has been observed in some fisheries (e.g. drift nets and light gillnets for flatfish) where it had not previously been seen (either because of no or low monitoring. This illustrates that a lack of observed bycatch does not necessarily indicate a lack of bycatch and highlights the poor level of understanding that we currently have for the North Sea in general. More and wider monitoring of other fisheries may mean a further increase in overall estimated bycatch levels. This in turn reinforces the need for improved monitoring coverage in the North Sea, with a representative coverage of the fisheries.

Monitoring on smaller vessels

There are some practical limitations on very small boats, both in terms of accommodating observers or REMs. In NL, there is no observer programme on vessels below 15m; there are a few on trawlers but not specifically for marine mammals. The smallest vessel on which REM will be used is about 10m. In France there are observers on vessels down to 7-8m. There is a very low coverage of small vessels in some countries (DK, NL, FR, UK); but the fleets of small vessels are generally very large (100s of boats).

For three years ago, Germany conducted an experimental study where smaller vessels where monitored from another platform/vessel. But this kind of "parallel" has not been continued by anyone.

The fact that the smaller segment of the gillnet fleet is not monitored at appropriate levels is considered a problem, given that vessels under 12m do not need to use pingers, and vessels of 10m and under constitute the bulk of the fleet (>70%) in all countries except NL and BE.

As an alternative to no-data, voluntary reporting of bycatch of protected species could be used for the smaller boats, although under-reporting may be inevitable. UK is conducting a project on sharks, skates, and rays with fishermen in the South West called NEPTUNE, and they collect biological data. They also undertake tagging of elasmobranchs such as spurdog, porbeagle, and common skate in order to better understand discarding patterns, and post discard survival, and to collect data useful in stock assessments. Such projects may also offer opportunities to record other bycatch data as well.

Recreational fisheries

There is generally no monitoring of recreational fisheries (for DK, see under 3.2.2.1). Bycatch in recreational gillnets has been documented in all countries where it is practised. It is not considered to be a concern in the UK, where activities believed to be minimal.

In the Netherlands, a video of a bycaught porpoise being released from a recreational fishery was shown on Youtube (redding bruinvissen noordwijk knrm) – however, the release was probably unsuccessful as the animal would have needed veterinary care. The video caused concerns amongst professional fishermen, worried that people would extrapolate from a bycatch of two porpoises in just a few metres of nets.

[1] GN, *Gillnets; GNS, set gillnets, GND, driftnets, GTR, trammel nets; GTN, combined gillnets-trammel nets.*

Monitoring required for proper bycatch data
The Group discussed how much monitoring was required to obtain good reliable bycatch data. It was suggested that for gillnetters the unit effort should be *haul* and not *days at sea (d.a.s)*. Monitoring 5% of effort was suggested, but the present reality lies between 0 and 0.8% days at sea, so this was judged unrealistic.

A power analysis could help in defining the lower limit required to still obtain reliable estimates. MS are in fact obliged to carry out monitoring under the Habitats Directive, to ensure that the data needed to assess the impact of bycatch are collected, but compliance to this has been very low if any.

The Netherlands will be achieving 10% coverage out of 120 vessels, of which many fish very little.

It was noted that there is a spatial component to monitoring and the areas and fisheries likely to have an impact should be prioritised for monitoring. The monitoring plan should be risk-based, also taking into account information on seasonal distribution and density of harbour porpoises. It should assess the susceptibility of porpoises to different gear types and then overlay that with known porpoise distribution and fishing effort/gear types. This will give an indication of hotspots of potential bycatch, which can then be the target for monitoring. Such a risk-based approach is being developed in the UK for seabirds, and is a cost effective way of targeting limited monitoring resources.

Mitigation
In terms of effectiveness of pingers, UK trial evidence has shown that - providing pingers are set correctly - bycatch can be reduced by about 95%. The UK 2013 bycatch estimates (Northridge *et al.*, 2014) assumes that all vessels required by the Regulation are using pingers correctly. Those 'pingered' vessels are therefore assumed to have reduced overall bycatch by about 250-300 porpoises. This indicates that it is other fleets, which are not obliged to use pingers under the Regulation, that are contributing to the overall maximum bycatch figure of 1600-1900. However, the report also notes the overall bycatch estimate is likely to be an overestimate, due to the extrapolation methods used and uncertainty over the extent and effectiveness of pingers used across different fisheries.

It was noted that it was also important not to over-regulate, as pingers are not neutral elements in the environment. It more likely points to the fact that most bycatch occurs in the segment of the fleet that falls out with the Regulation requirements – i.e. the vessels below 12 m, which represent the bulk of the fleet and source of bycatch, but a segment where pingers are not mandatory.

3.1.3 The Dutch impact assessment of the effects of set net fisheries upon harbour porpoises
A consulting firm carried out a risk assessment study over a narrow strip of coastal zone. They used AIS data to check fishing effort, trying to make a bycatch assessment both for the professional and recreational fisheries. It was not based on hard data but an estimate. Some recommendations were made for different fisheries - i) use of pingers in commercial set net fisheries for cod, sea bass and mullet, ii) a reduction in net lengths, and iii) a closed season from April to November in fisheries for sole. These proposed measures could be extended to the entire distribution range of the harbour porpoise.

3.1.4 Others – Bycatch of harbour porpoises in Belgium
Presentation – Jan Haelters (given by P. Evans):

Strandings of apparently bycaught porpoises in Belgium originate from different sources, although attributing the source is in most cases very difficult, and it always comes with some level of uncertainty. Bycatch, and its most probable origin, is assessed through the interpretation of several parameters (fresh external lesions, healed/healing lesions, other characteristics, nearby fishing activities). These sources can be:

- Recreational fisheries from the beach (some direct, but mostly indirect evidence)
- Illegal 'recreational' fisheries near the coastline (a small amount of illegal recreational fisheries remains due to a strict control and action, although in 2014, two fishermen were caught setting in total over 1 km of trammel nets)
- Professional fisheries within the 12 nm zone (Belgian; direct and indirect evidence)
- Professional fisheries outside the 12 nm zone (French, Danish, …)
- Professional fisheries outside of Belgian waters, probably in French territorial waters and UK/French EEZ's.

The number of harbour porpoises washed ashore shows an increasing trend over the years (Figure 1), and two seasonal peaks in strandings are observed (Figure 2). The major cause of death between March and May is bycatch, while natural causes of death are the most common finding in porpoises stranded during late summer.

Bycatch mitigation measures taken in Belgian waters are of two kinds:

- For professional fisheries, the measures taken in the CFP are applied. There are only 2-4 Belgian fishermen using set nets.

- For recreational fisheries, a number of measures were taken:
  a) Gill/trammel nets not allowed at sea since 2001;
  b) Gill/trammel nets not allowed on the beach in one coastal community, and in a second from 2015 onwards;
  c) A gill/trammel net ban was announced in the plans of the new Flemish government (with a probable implementation from 1 January 2015 onwards).

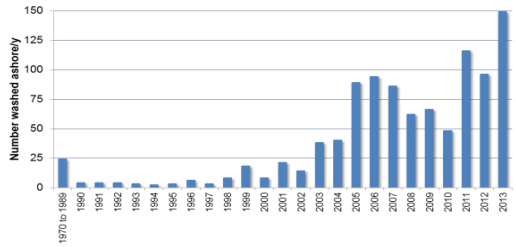

Figure 1. Number of stranded porpoises in Belgium between (RBINS, preliminary data, unpublished)

Figure 2. Montly distribution of strandings of harbour 1970 and 2013 porpoises in Belgium between 1970 and 2013

Discussion

The difficulty and reliability of using strandings data for diagnosing bycatch were discussed. There are standard procedures for necropsies (see ECS workshop from mid-1990's), but much has happened since, e.g., finding out that grey seals attack porpoises, yielding specific lesions. The protocol is based upon scoring of different "events" and that might need updating. The group agreed that updating the protocol should be a priority. There are plans for doing this at the next ECS conference (Malta, 21-25 Mar 2015).

> ***Recommendation:*** There was support for a workshop updating the ECS necropsy protocols, particularly with respect to diagnosis of bycatch. ASCOBANS is encouraged to provide funding support e.g. supporting key participants and the required work for updating the protocol (Rec. 15)

3.1.5 ICES WGBYC 2014

Presentation – G. Desportes:

There is no mandatory monitoring in net fisheries in the North Sea (NS) (VIIde, IV and IIIa) under Reg. 812/2004. Consequently, and although it is mandatory under the HD, MS conduct very limited marine mammal bycatch monitoring in net fisheries in the NS, as clearly illustrated in the table opposite (Table 3.2, from Desportes 2014[2]).

Countries	Metier level 3	Days at sea (DAS)	Days observed		Method	Observed ByCatch HP
			n	%		
Sweden	Nets	884	0	0		
Denmark	Nets	10572	80	0,76	DCF	0
			12	0,11	REM	0
Germany	Nets	1778	0	0		
Holland	Nets	3152	0	0		
Belgium	Nets	215	0	0		
France	Nets	29695	212	0,71	OM	4
UK	Nets	38186	109	0,29	DCF	0
			155	0,41	DO	7
All	Nets	84482	379	0,45	DO/OM/REM	11
			189	0,22	DCF	0
			568	0,67	All	11

Overall marine mammal bycatch monitoring in net fisheries, set and drift nets (GN, GNS, GND, GTR, GTN) in the North Sea at large (ICES areas VIIed, IV and IIIa) in 2012. The' method' refers to: *DCF, Data Collection Framework for on board discards and catch sampling; REM, remote electronic monitoring; OM, dedicated observation conducted under the French programme ObsMer; DO, monitoring conducted by dedicated marine mammal observers.*

Data from ICES WGBYC 2014 (extracted from the 2013 MS annual reports on the implementation of CR (EC) 812/2004 for the calendar year 2012.

Sweden, Belgium, Germany and the Netherlands did not perform any marine mammal bycatch monitoring in net fisheries in the NS in 2012**.** Denmark monitored 0.8% of its net fishing effort through the DCF and 0.1 % using REM, UK conducted a similar level of monitoring, but 60% was done by dedicated observers. France had also a similar level of dedicated monitoring, all under the programme ObsMer. As a result, less than 0.7% of the total static and drift net effort *reported* for the North Sea was monitored for marine mammal bycatch in 2012, with less than 0.5% monitored by dedicated observers/REM.

[2] Desportes, G. 2013. Interim report on the implementation of the ASCOBANS North Sea Conservation Plan for Harbour Porpoises – 6, with focus on progress in implementation of Actions 2 and 4. 38pp. AC21_2.2.1.b. http://www.ascobans.org/sites/default/files/document/AC21_2.2.1.b_rev1_Report_ImplementationNSP.pdf

A detailed picture of the bycatch monitoring (areas, vessel size, gears, methodology used) was also presented. Overall, the dedicated monitoring of bycatch is conducted at a level of 0.55% in the Channel, 0.22% in the North Sea proper and 0.28% in ICES area IIIa. **In other words, well over 99% of net fishing in the North Sea is conducted without any marine mammal bycatch monitoring**. Furthermore, these figures are overestimated because they refer to the **reported** effort, but an unknown, but likely significant, part of the fishing effort is unreported:

- Most countries do not have effort data for vessels below 10m, but this segment represents the bulk of the fleet. Vessels 10m and under constitute over 73% of the North Sea MS fishing fleet (Masters, 2014);
- Recreational fisheries are not taken into account; and
- ICES WGBYC noted that it was likely that MS only reported the required 80% of sampled effort/data in accordance with DCF requirements based on landings, cost or total effort.

Bycatch events reported by NS MS for 2012
Pp, *Phocoena phocoena*; Dd, *Delphinus delphis*; Gg, *Globicephala melas*

Species	MS	Fishing Area	Vessel size (m)	Métier Level 3	Métier Level 4	Métier Level 5	Effort (Days at Sea)		Number of Pp specimens
							Total	Observed	
Pp	France	IVc	<15	Nets	Trammel Net	Demersal fish	2659	11	2
Pp	France	VIIe	15-24	Nets	Trammel Net	Demersal fish	876	17	2
Pp	UK	VIIe	<15	Nets	Set gillnet	Demersal fish	3035	2	2
Dd 2, Ph 5, Gg 1	UK	VIIe	>15	Nets	Set gillnet	Demersal fish	143	29	5

Discussion
Data for properly assessing bycatch are seriously missing. The monitoring performed so far is totally inadequate.

Furthermore, some of the existing effort data cannot be used by ICES WGBYC for assessing the extent of bycatch in the North Sea, simply because it is forwarded to ICES WGBYC in the incorrect format.

Recommendation: Monitoring of cetacean bycatch remains inadequate. (Rec. 1)

Recommendation: There is a need for much more extensive monitoring coverage than exists at present mainly for the fishing fleets suspected of causing porpoise bycatch. (Rec. 2)

3.1.6 Bycatch risk assessment for harbour porpoise in the North Sea: update from ICES WGBYC 2014

Presentation – G. Desportes:

Although proper bycatch monitoring data are missing, ICES WGBYC attempted to make progress in assessing porpoise bycatch using the Bycatch Risk Assessment (BRA) approach "*Given a species abundance estimate and a bycatch reference limit, as well as an estimate of total fishing effort, one can ask what overall bycatch rate would be needed to exceed the bycatch reference limit and then decide whether or not this is feasible"* (ICES WGBYC 2014). This approach was used for the North Sea (Areas IV and IIIa).

Net fishing effort for NS range states in areas IV and IIIa was estimated to be 35,413 Days At Sea in 2012 (corrected from ICES WGBYC 2014, where there was a mistake). The overall bycatch rate associated with bycatch limits under different reference level limits, as calculated by Scheidat *et al.* (2013) using specific assumptions, are given in the table below.

Table XXX: Overall bycatch rate associated with bycatch limits under different approaches to setting reference level limits in the North Sea (Areas IV and IIIa)
Reference level limits for porpoises in the North Sea are based on Scheidat et al. (2013) and abundance estimates from SCANS-II (Hammond et al. 2013)

Reference limit method	NS Bycatch limit for a HP population of 216,400	Associated overall bycatch rate Considering 35,413 DAS
ASCOBANS 1.7%	3679	0.104
ASCOBANS 1.0%	2164	0.061

PBR, Potential Biological Removal	1246	0.035
CLA, Catch Limit Algorithm	840	0.023

The 58 bycatch estimates for North Sea fishery segments strata collated bycatch by ICES WGBYC (dating back to 1995) range from zero to 2.77 porpoises per day at sea, with an overall mean bycatch rate of 0.139. This overall rate is higher than the threshold bycatch rate of 0.104 porpoises per day based on the ASCOBANS 1.7% definition.. The overall mean of 0.139 is likely to be biased by sampling focused on fisheries where bycatch rates are known to be high. Looking at the range of the 58 bycatch rates, 38% exceed the CLA reference limit, 29% the PBR reference limit, 26% the 1% reference limit, and 24% the 1.7% reference limit. However, it should be borne in mind that the effort reported and used for this Bycatch Risk Assessment is likely to be significantly under-estimated – see under point 3.1.5.

Discussion

The available data shows too high a bycatch in certain fisheries, but uncertainty is high.
ICES advised the European Commission (2009) 'that a Catch Limit Algorithm approach [CLA] is the most appropriate method to set limits on the bycatch of harbour porpoises or common dolphins".
There needs to be more discussion on which reference level to use.

3.2 Monitoring projects

3.2.1 Update on Remote Electronic Monitoring (REM) projects

3.2.1.1 Danish REM projects

It was noted that in Denmark the different trials have been quite successful and represent an increased coverage of protected species - seabirds, marine mammals and fish, at reduced cost. The cost of the equipment is presently decreasing (F. Larsen reported at JG10 on a company that was producing at even lower cost) and the equipment is becoming smaller. REM did reveal higher detection rates of bycatch than observers. The major challenge is to get fishermen to accept REM monitoring, using a carrot and stick approach, e.g. the incentive that fishermen get extra rights if they agree to use it.

3.2.1.2 Dutch REM project

The project started in December 2012 and involves nine vessels, all below 14m, initially with one camera per vessel, but now two. There was a challenge over space; the fishermen wanted cameras to be trained on the net and not the wider deck space to have anything on the deck to be visible. The main logistical challenge turned out to be the power supply. The vessel battery supply is just sufficient for hauling nets but not enough for running the cameras as well. Improvements to the vessel's power supply cost up to 10k Euros per vessel. Other things interfered as well, such as the change in EU policy, sales of vessels, and communities refusing to cooperate, and there were also issues with the software analysis. There were clearly lots of negativity until incentives were proposed to the fishermen.

The fishermen were given the choice of throwing overboard the bycaught animal after marking it or bringing it ashore. The three porpoises so far bycaught were handed in. The post mortem examination revealed that net marks were clear on a fresh animal, but were no longer visible two hours later. After a one week rotting experiment, it was not possible to determine the cause of death. The young male in bad condition, underweight and with skin lesions, would not have been diagnosed as bycatch. The fishermen's reports on how/where an animal was found in the net can then be compared to the type of net marks found.

3.2.1.3 German REM project (WWF/FAF/TI-OF)

P. Brtnik mentioned that the project was conducted in the Baltic Sea and ended 3 years ago. There was a lot of resistance to it from the fishermen. No bycatch was observed. The final report has not yet been received. A series of dialogues[3] was started with the industry; the next one will be in October 2014. This triggered discussion on alternative fishing gears.

3.2.1.4 Other REM projects

There has been no further project in Sweden, where there is no form of bycatch monitoring.

Common discussion to 3.2.1.5-7

REM is a promising tool, which has given good results during the now numerous experiments conducted, especially in Denmark and the Netherlands. Lots have been learned both on its potential and the issues faced in implementation. Systems are becoming cheaper, smaller and more resistant. There are, however, challenges in the implementation of such monitoring both at the technical and "human" level. It is in particular difficult to persuade fishermen to cooperate on a voluntary basis, as they do not think there is any obligation for them to monitor smaller vessels (cf. Reg. 812, where compulsory monitoring concerns vessels only above 15m), and they are afraid that data might be used against them. Actually,

[3] http://www.duh.de/uploads/media/DUH_summary_Living_Baltic_Sea_Fisheries_Dialogue_140326.pdf

there are monitoring obligations under the HD for all types of vessel, including those under 15m, as well as under the Regulation for Pilot Studies.

The group agreed that a workshop is needed, so that a greater exchange of experiences could be achieved between the groups using the system as well as those wanting to do so, especially in the light of the ICES strong recommendation made for a wider implementation of monitoring of PETS. The practical/technical issues are very important, but other crucial aspects including having good cooperation with the fishermen, and getting them motivated so they commit to being part of the solution. Also, REM monitoring should be thought of in a larger framework, e.g. the needs for the CFP.

There were three sets of elements needing to be addressed:

- technical issues,
- involving stakeholders (fishermen) – the effort had to remain local to be efficient,
- recommendations to the EU to modify the regulation, esp. with respect to small vessels.

The technical workshop should come first and its venue should be recommended to the AC. M. Scheidat and S. Königson were asked to draft ToRs for the workshop, the expected results being an overview of the current status of REM techniques in use, and of the common implementation problems/concerns and solutions to these; the identification of new techniques that can be used to monitor bycatch in the future; and the proposal of a best practice protocol for implementing REM for protected species monitoring.

> ***Recommendation****:* Initial trials using REM show promise. A technical workshop is recommended that brings together the collective experience of practitioners involved in the use of REM to facilitate the implementation/uptake of this approach at a wider scale. REM could also be implemented as a sampling scheme. (Rec. 8)

M. Scheidat pointed out that the process of implementing REM monitoring needs to be process oriented, not results oriented, to achieve a good collaboration with the fishermen. The series of dialogues[4] in Germany had been very successful, triggering the wish to develop alternative fishing methods. In Portugal also, there were good examples of how involving fishermen resulted in better reporting. Personal relationships with the fishermen certainly yield better cooperation. A workshop could discuss incentives for getting better cooperation. Compiling information on stakeholder involvement projects, what worked and what didn't work, would be useful. F. Ritter volunteered to help the Secretariat with this. The ECS had a workshop on that a few years ago, which could be a good start. One should widen the search to projects involving all kind of PETs (Protected, Endangered and/or Threatened Species).

> ***Recommendation:*** There is a need for involvement of relevant fishing organisations in the work of the North Sea Group. To improve dialogue in each North Sea country, an overview should be compiled of the fishermen's organisations most appropriate for stakeholder engagement. Those should then be approached on a national level to determine the best ways to develop a better dialogue. (Rec. 9)

> ***Recommendation****:* A list of relevant projects that have included stakeholder engagement (and where there may be transferable lessons learned when engaging with fishing communities) should be compiled. (Rec. 10)

3.2.2 Other monitoring projects

3.2.2.1 Danish monitoring project in recreational fisheries

Fisheries inspectors checking recreational nets are required to record bycatch, but it is not clear what the monitoring strategy is, how the data will be analysed, and whether any reliable bycatch estimate can be extrapolated.

3.2.2.2 Dutch project in Noordzeekustzone

See under 3.1.3. A possible incentive would be to allow set nets for those participating in the study.

3.2.2.3 Voluntary reporting – of any use?

The Norwegian study was based upon the reporting of selected vessels from each fishing area, but included visits by inspectors on board to check for compliance. However, it was expensive, as the vessel was compensated for participating.

Sea Watch Foundation ran a voluntary reporting scheme in Shetland, Scotland in the 1990s. There was almost certainly under-reporting, but there was nevertheless some reporting.

Care should be taken that incentives do not encourage bycatch or killing of live animals in nets.

[4] http://www.duh.de/uploads/media/DUH_summary_Living_Baltic_Sea_Fisheries_Dialogue_140326.pdf

***Recommendation**: The new DCF requires collecting data from recreational fisheries; the AC should ask EC to establish bycatch monitoring for recreational fisheries*

3.2.2.4 Others
Nothing under this point

3.3 Assessment of bycatch in the North Sea – the missing bits

3.3.1 Missing fisheries

Presentation – G. Desportes:

The level of bycatch monitoring was overall very low, and except for a very few segments (e.g. FR GTR 15-24m, UK GTN >= 15m), the level of bycatch monitoring was well below 1% in most fishery segments even when the DCF monitoring was included. Besides, some countries were not conducting any monitoring in the North Sea (in 2012, Sweden, Holland, Germany and Belgium). Some fishery segments were particularly poorly monitored by the other countries. In the North Sea proper, these included the smaller Danish gillnetters, the larger French trammel netters, and the larger British gillnetters and trammel netters. In the Channel, those segments include the British drift-netters and smaller gillnetters.

Also, part of the existing monitoring relied on DCF observers, although this was considered inappropriate by ICES, as the DCF is currently designed.

Discussion

The DCF, as it stands, is not designed (in terms of target fisheries and protocols) for recording bycatch of protected species. The recording of marine mammal information is not included, whilst the DCF targets fisheries with important discards (e.g. trawls), and therefore not net-fisheries where the bulk of the harbour porpoise bycatch occurs. Some (but not all) of the countries which use DCF monitoring for monitoring marine mammal bycatch, have, however, appended extra forms for recording marine mammal bycatch.

The question is whether it is worth revising the DCF protocols, or whether DCF monitoring will ever be reliable for marine mammal monitoring. Specific guidelines would certainly need to be established, and protected species should be made one of the priorities in terms of coverage. Protocols would also need to clearly differentiate between zero bycatch or non-recorded bycatch. One has to be careful not to give the impression that monitoring is performed, when actually it is not done properly.

The group agreed with the conclusion of WGBYC and ICES advice that *DCF is inadequate in terms of marine mammal bycatch monitoring, and can only be improved in some contexts.* REM should be the way forward, as it is also needed for complying to the discard ban.

In DK, REM trials were started as a means of documenting discards: the "fully documented fishery"[5,6], i.e. documenting both bycatch and discards.

One question was raised on whether the REM data will be comparable with dedicated observer data and non-dedicated monitoring. REM data should be comparable to dedicated observer data and much more reliable than any non-dedicated/DCF observer data. Bycatch results obtained from REM monitoring should not be compared directly with previous bycatch data, especially those based on DCF monitoring, as false increases will be very likely. They should be set in relation to population data.

The requirement of the new DCF monitoring will be decided upon by the fisheries sector, who are likely to give little priority to the monitoring of PETS. It is important that persons with concerns for PETS influence the process. The November meeting of the STECF (*Scientific, Technical and Economic Committee for Fisheries)* will try to simplify and finalise data collection protocols for DCF. It is important to inform the definition of parameters needing to be included in DC-MAP (Data Collection – Multi-Annual Plan). There is only a narrow window of opportunity to influence the process before the November STECF meeting.

[The ToRs of the meeting were later modified, and the meeting did not address further the data collection PETS]

The group discussed what should be specified in DMAP. Some thought that DC-MAP should specify the monitoring requirements, but not specify the method to be used. It was important to highlight why the old DCF was failing, the potential

[5] Kindt-Larsen, L., Kirkegaard, E., and Dalskov, J. 2011. Fully documented fishery: a tool to support a catch quota management system. *ICES J Mar Sci* 68: 1606–1610.

[6] Kindt-Larsen, L., Dalskov, J., Stage, B., and Larsen, F. 2012. Observing incidental harbour porpoise *Phocoena phocoena* bycatch by remote electronic monitoring. *Endangered Species Research*. 19: 75–83. http://www.int-res.com/articles/esr_oa/n019p075.pdf

of REM, and recommendations for what the new DCF or a more effective alternative approach should achieve in terms of monitoring. Clearly the present DCF observer scheme is not adequate, since the coverage was not designed for PETS, and the observers could not possibly observe all bycatch, etc.

The group agreed that the DCF was not adequate and that two schemes gave good results: dedicated observers and REM. However, there was discussion on how much flexibility should be kept in the monitoring program.

It was essential that the appropriate fisheries be targeted, with a higher monitoring required of "high risk" fisheries.. What is needed in terms of data should be clearly defined. Then a practical way for getting good data should be found. People should be challenged to find ways of getting these data.

A risk assessment approach was a good investment of time and resources for defining where the issues were, so that effort could be dedicated there. SCANS III would provide data layers for risk assessments. These will need to hone in upon problem areas

> ***Recommendation:*** The existing DCF (Data Collection Framework) schemes cannot be relied upon for estimates of bycatch; monitoring should be fit for purpose with direct monitoring recommended either through dedicated observer schemes or remote electronic monitoring (REM). In the development of the new DCF under the multi-annual Union programme for data collection (DC-MAP), the dedicated monitoring of protected species should be specifically identified. (Rec. 6)

> ***Recommendation:*** Other approaches that could be appropriate for assessing the impact of bycatch should be explored further, such as taking a risk-based approach to monitoring. (Rec. 7)

3.3.1.1 Where do the porpoises stranded in the Netherlands and Belgium come from?
See under point 3.1.4

3.3.1.2 UK driftnet fisheries in the North Sea
J. Rendell presented the Masters driftnet report[7], which is a response to a proposal for a blanket ban on all driftnet fisheries in the EU. UK is not in favour of blanket bans, as driftnetting is a significant source of income for many small- scale fishermen. The reasons behind the proposed ban are enforcement issues for the present regulation, which ban some driftnetting activities but not all, with some unclear definitions of driftnets, opening a loophole in the existing legislation and thus rendering enforcement difficult.

UK advocates a full implementation of the current regulation and a risk based assessment approach rather than a blanket ban. A REM option for monitoring could also be a way forward.

Driftnetting is very seasonal, depending also on market prices, with fishermen switching between gear types.

It was unclear how much bycatch is due to driftnetting. This was also true for France, where driftnetting effort is thought to be reported under a wider category: gillnets and entangling nets - GEN, instead of their specific category drift gillnets - GND. This may also be the case in other countries, making driftnet effort difficult to quantify. A more precise collection of fishing effort is necessary.

3.3.1.3 The lesser fleet (vessels below 10m)
G. Desportes reiterated the profile of the NS fishing fleet, where vessels 10m or below represent over 70% of the fleet, except in the Netherlands (36%) and Belgium (0%), coupled with the fact that most countries did not require nor possess any effort data for this segment. To this should be added recreational fisheries. Monitoring in vessels below 10m was practically absent.

> ***Recommendation:*** Fishing activities that should not be overlooked include recreational fisheries where there is suspected bycatch, and vessels of 10 metres length and below. (Rec. 5)

3.3.2 Adequacy of the reporting to the EU
See e.g. under point 3.3.1.2 - the problem with effort reporting for driftnets.

> ***Recommendation (reiteration)****:* The recording of fishing effort needs to be more precise, using the number of hauls in addition to days at sea, and allowing for spatial (ICES divisions) and temporal (monthly/quarterly) stratification. (Rec. 3)

[7] http://www.devonandsevernifca.gov.uk/sitedata/Misc/driftnetreport.pdf

> ***Recommendation:*** There is a need for a more precise differentiation of gear types when reporting effort and bycatch; gillnet-tangle nets (GNS), trammel nets (GTR) and driftnets (GDN) in particular should be reported separately. (Rec. 4)

3.3.3 Other matters

> ***Recommendation****:* All member states should ensure that annual reports on Regulation 812/2004 are made public. (Rec. 13)

3.4 Recommendations that could also be delivered to the EC

The work carried out under OSPAR should be taken into account. The EC should be asked to ensure there is close integration with the work of the MSFD.

There should be an ASCOBANS input to the revision of the bycatch regulation, in terms of reporting, monitoring, and mitigation. This point will be discussed further at the AC.

> ***Recommendation****:* A workshop is recommended to provide a position on bycatch in relation to the review of Regulation 812/2004 to feed into the European Commission. (Rec. 12)

4. <u>Implementation review: Development of alternative mitigation methods (Action 5)</u>

4.1 Update on German projects (PAL and alternative & ecosystem-friendly fishing gear project)

Most of the fieldwork has being conducted in Denmark. PAL increases echolocation activity, it is still to be determined whether bycatch is reduced. The final report is expected by the end of the year.

P. Brtnik mentioned that the project on alternative fishing gear started last year, finding the most economical way to buy alternative fishing gear, which can also be used on small vessels. There were lots of delays but, so far, four jigging reels and one long-line system were bought and tested and one workshop with a fishermen's organisation has been conducted to date, The project has been received very positively, and is supported by the fishermen, although testing has found some technical constraints. The work is still ongoing, A 13-day trial was considered insufficient to solve the issues, so the idea was to have a one-year test on 1-2 boats, and also to do some tests on fish traps next year, though currently only in the Baltic Sea.

F. Ritter said that there was an English summary of the fisheries dialogue "Living Baltic Sea"[8]. P. Brtnik noted that the North Sea version was published only in German, but there was an English version earlier. The first phase of project was focusing upon the Baltic, but now shifting to North Sea with at least two dialogues.

4.2 Update on the Dutch projects (Banana Pinger, DDDs)

A project showed that the Banana Pinger was easy to use, and created an avoidance response. The next step was to look at optimal spacing. There was no information on the DDD experiment.

4.3 Update on the UK projects (Banana Pinger, DDDs)

The Cornish Wildlife Trust (CWT) conducted Banana Pinger trials on the inshore set net fleet: it reduces click rates and could be cost effective, and the CWT recommended it as an alternative to the DDD for the inshore fleet. The effectiveness in reducing bycatch, however, needs to be tested through further work.

The UK had concerns about potential implications regarding wide-scale uptake of pingers in terms of potential disturbance to porpoises as well as meeting noise requirements under MSFD.

N. Tregenza had planned trials to test for disturbance. The DDDs have a 2km effective range, the Banana Pinger a 200m range. The potential disturbance has to be considered vs. price. Also, the DDDs have been shown to reduce bycatch by 90%. Such data are not yet available for the Banana Pingers, which have only been shown to reduce click detections. Some baseline data are needed.

There had been a problem with the battery light on Banana pingers attracting seals, but the design was subsequently modified. Whether they were audible (in the frequency range) to seals was questioned. They should be audible only at very short range, but some felt that the bycatch of juvenile seals had increased.

[8] http://www.duh.de/uploads/media/DUH_summary_Living_Baltic_Sea_Fisheries_Dialogue_140326.pdf

4.4 Update on changes in fishing procedures (France, Germany, The Netherlands)

France has taken a derogation to use DDD, in which no spacing was specified. No scientific advice was given to the fishermen, who should decide on the method of deployment.

When UK asked for their DDD derogation, the requirement was to comply with the manufacturer's guidance on use; Annex 2, paragraph 1 of the latest version of the Regulation points to this; the UK's MMO (Marine Management Organisation) had circulated best practice guidelines.

ICES Advice (December 2013) has been provided on the spacing between pingers.

The use of pingers is not enforced in France and Sweden, although they should be used in some fisheries. There have been complaint procedures initiated for non-compliance.

In Germany, a new Federal State (Schleswig-Holstein) regulation **within the whale sanctuary of the Wadden Sea** came into force: any gillnet fishing within the 3 nautical miles zone is excluded; outside the 3 nautical miles zone, gillnet fishing is prohibited with gillnets with a length of > 1,3m from upper line (headrope) to the ground-line (footrope) and a mesh size of > 150mm. It was not clear on which data the new mesh size was based.

In The Netherlands, a "pulse" fishery is practised, but nothing is known about its impact on marine mammals.

4.5 Others

Sweden continues to undertake alternative fishing gear trials, using cod pots, Danish seines and trammel nets for flatfish. There are three different projects on cod pots. For the North Sea, however, only cod pots are relevant.

4.6 Update on long-term effect of pingers

The Danish project was delayed, See Doc.6.1.a and Inf.6.1.b.

L. Kindt-Larsen has examined the relative detection rates of porpoises with and without pingers, but the study is not published yet.

In the UK, S. Northridge was doing related work, but nothing dedicated on set nets; N. Tregenza did a desk based assessment, and the data so far did not suggest a decrease in effectiveness of pingers.

5. Implementation Review: Monitoring Trends in Distribution and Abundance (Action 7)

5.1 Dogger Bank survey 2013 (NL)

Presentation by M. Scheidat

An aerial survey was conducted over the Dogger Bank in July-Sept 2011 and 2013 by an international team from Denmark, The Netherlands and the United Kingdom. The British, Dutch and German sectors of the Dogger Bank adjoined and formed a Site of Community Interest hosting harbour porpoises, and common and grey seals. The methodology used was similar to SCANS II.

The weather was worse in 2013 when no surveying was done in the German sector. The 2013 estimate of 45,000 compared with 116,000 in 2011, with a similar distribution (mainly in the western sector adjoining the Dogger Bank) but a lower density. The timing of the two surveys was different (the 2013 one being done three weeks later in the year) and the animals' migration might account for the different numbers. Another relevant factor might have been the sea temperature (2013 was warmer). There was a correlation between porpoise density and distance to sandeel fishing grounds. Other species encountered in 2013 included white-beaked dolphins, minke whales, and basking sharks.

5.2 Others

The German monitoring (the report link[9] is included in list of documents) found a significant increase in porpoise density in the southern German North Sea between 2002-12, but no decrease in the north, concluding that this increase is not caused by a range shift within the German EEZ. There were, however, seasonal differences.

F. Ritter reported on the German project on the porpoises that have been increasingly entering the rivers Elbe and Weser.

France had the project SAMM in 2011-2012, with surveys in winter and spring in the French mainland EEZ.

[9] http://www.ascobans.org/sites/default/files/document/AC21_Inf_12.1.e_National_Reports_Germany_0.pdf

The Netherlands and Belgium continue their annual monitoring activities.

6. Other activities contributing to the conservation of the harbour porpoise in the North Sea:

6.1 EU Habitats Directive:

6.1.1 Review of North Sea SCIs/SACs concerning harbour porpoises

An overview of the present situation in the different countries can be found in the report of 2013 by Whale and Dolphin Conservation "Making space for porpoises, dolphins and whales in UK seas"[10]

6.1.2 Progress in designing conservation objectives, management plans and conservation measures for harbour porpoises in *Natura 2000* areas

6.1.2.1 "National" SACs

6.1.2.2 Joint SACs

6.1.2.2.1 Dogger Bank

6.1.2.2.2 Others

The above points were discussed as a general discussion under point 6.1.3.

6.1.3 Perspective for harbour porpoise conservation in the North Sea

Discussion focused upon how harbour porpoise has been designated by MS in the Dogger Bank SCI. The primary reason for selection of this site has been the sandbank habitat rather than harbour porpoise. The aerial surveys reported by M. Scheidat indicate porpoises concentrated in UK waters on the western and northwest margins of the Dogger Bank SCI (extending beyond its boundaries) rather than in Dutch waters, and in one of the two years, also in the north-eastern sector within German waters, porpoise densities being highest around the edge of the sandbank.

The "Dogger Bank process" was ongoing in Germany, and F. Ritter felt that bottom trawl and gill nets at least should be excluded from SACs. O. Schall noted that in Germany, actions were partly federal and partly within states (Länders). There tended to be a difference of view between fisheries and the environment ministry. The Federal Ministry of Food, Agriculture and Consumer Protection (BMELV) wants to use pingers within porpoise SACs, but at a working level they could not find agreement, and so now it has gone to a higher, political, level. In answer to a question about how fishing was regulated in relation to porpoise grading within a SAC, he did not know.

J. Vis confirmed that no SACs had yet been proposed in The Netherlands primarily for porpoises although some sites where porpoises were listed as a qualifying feature were currently being considered by Parliament.

J. Rendell reported that following the WWF complaint, the UK was looking at data to see if sites could be identified as potential SACs for the species. That advice was nearing completion, but needed discussion internally this year. If additional sites were proposed, a consultation process would be needed and this would take place in 2015.

F. Ritter expressed concerns that no management plans had been established within porpoise SACs, and there were insufficient designations, even though required under the Habitats Directive. He also advertised the WDC report "Making Space for Porpoises, Dolphins and Whales in UK Seas" (see under 6.1.1).

P. Evans stated that predictable concentrations do exist for the species. Those should be identified with porpoise as a qualifying feature, and boundaries for candidate SACs adapted to suit the distribution of animals. At present, in UK at least, the great majority of SACs with porpoises have them as a grade D. They were not selected as prime areas for the species and so afford little benefit.

It was noted that only Denmark and Germany appeared to be developing porpoise SAC management plans. Germany expects to have them in place in 2015, with only fisheries conflicts needing to be resolved.

There was some discussion as to whether MS need to set up management plans within six years of SAC designation or six years from SCI communication.

[10] Dolman, S.J. Champion, A., Clark, J., Eisfeld Pierantonio, S., Green, M., Gregerson, S., Hodgins, N., Ritter, F., Tetley, M. and Hoyt, E. 2013. Making space for porpoises, dolphins and whales in UK seas: Harbour Porpoise Special Areas of Conservation as part of a coherent network of marine protected areas for cetaceans. A WDC Report. http://uk.whales.org/sites/default/files/making-space-for-uk-porpoises-dolphins-and-whales.pdf

The point was made that according to DG Environment it was often not recognised that SACs do not equate to the exclusion of all human activities. The aim was to identify areas of persistent importance for populations of that species so that any human activities within those areas could take appropriate mitigation measures to minimise their impact. This may mean designating relatively large areas as SACs but zoning within those.

J. Vis observed that governments face difficulties to get protected areas designated in the first place. This aspect needed addressing.

P. Evans said that EU Nature legislation was being reviewed to ensure it was fit for purpose; the tendency within the marine environment was towards spatial planning and zoning of activities.

6.2 Update on MSFD and marine mammal indicators

6.3 Determination of safe bycatch limits for harbour porpoises

These two items would be discussed at the AC.

6.4 Certification schemes

6.4.1 Update on the Danish Project

No information had been provided to the meeting.

6.4.2 Update by France

A public certification project is in process, which is different from MSC (Marine Stewardship Council) certification, and takes also into account social aspects. The French sole trammel net fishery was applying for certification.

6.4.3 MSC requirements in term of marine mammal and PET bycatch

MSC guidelines were to minimise bycatch of non-target species, making use of mitigation measures. The Secretariat encourages Parties to send in information on these certification projects/process.

ASCOBANS should comment on the criteria chosen. It was suggested that the NSG should express concern based on the data presented, and ask them to use bycatch data to evaluate fisheries. It was necessary to engage with them, discussing how best to address marine mammal bycatch. ASCOBANS/NSG could also provide them with the list of the fisheries that are a problem. ICES is not directly engaged in the certification process, even though several members are involved in MSC reviews.

In the Danish project, the fisheries have to prove that they did not have bycatch. This is one of the reasons why the REMs could get accepted.

In Sweden, the burden of proof was on the fishery. The cod net fishery did not get certified until they proved that bycatch was not a problem. The cod hook fishery had withdrawn because they couldn't prove that there was no seabird bycatch.

6.4.4 What can ASCOBANS do to ensure that bycatch is taken into account?

ASCOBANS should engage with MSC, but criteria/assessment should not be too generalised, as realities were different in different fisheries.

> ***Recommendation:*** A dialogue should be established with the Marine Stewardship Council to discuss ways to improve the incorporation of marine mammal bycatch issues within their certification scheme. (Rec. 11)

6.5 Others

Nothing under this point

7 <u>Overall progress in the implementation of the Conservation Plan (implementation table)</u>

G. Desportes presented the summary table. Some of the assessment is based on the Annual Report to EU on Reg. 812, i.e., on the status for implementation two year previously (e.g. report 2014, based on Reg. 812 report on year 2012, delivered to the EU in 2013, and reviewed by the ICES WGBYC in 2014).

It was questioned whether the NSG report should not include an Implementation Summary table based on the best/latest assessment instead of two-year old information. G. Desportes reviewed the summary table (see Annex 1), taking this into account. This will then be reviewed by the delegates. She underlines, however, that she could only build her assessment on the information she had (the Reg. 812 report to the EU) as the delegates did not communicate further information to her for the period 2013-14.

8 <u>Calendar of Actions 2014-2015</u>

8.1 Priorities of action points of the North Sea Plan

Changing priorities require a proper evaluation, that the group did not have the time to undertake in the remaining time.

There was a unanimous agreement that Action 1 had a very high priority. It was both crucial to be able to prolong the contract of the Coordinator, and to promote the Plan and involve the stakeholders.

> ***Recommendation:*** The NSSG underlines the strong need for a coordinator of the North Sea Harbour Porpoise Conservation Plan and therefore requests further support. (Rec. 18)

8.2 Priorities of the Work Plan for the NSSG

Technical workshop on REM – Action 3
Necropsy Protocols workshop – Action 10
Engage MSC – Action 1 (involving stakeholders)
Need to have a better understanding of the impact of bycatch – Action 4
Investigate the cumulative effects of noise producing activities over the whole region – Action 11

It was felt that Action 11 was becoming a priority as nature conservation will not block economic development, and development occurs in all national areas, impacting locally but also the contiguous national area. Therefore, impact management could not be done at a national level and there was a crucial need for coordinating impact assessment on conservation status/distribution, as well as impact management. A process for such coordination was presently lacking, and very much needed.

UK has a noise registry, and other countries develop these too. Once populated, one has to examine how these registries can be useful as a management tool. This work is being driven by the requirements of the Marine Strategy Framework Directive.

It was crucial to realise that the development of offshore renewables was happening now and in very many different forms both above and below the surface. It was therefore crucial to look at this considering the number of potential simultaneous developments in the North Sea. Modelling approaches were necessary to assess cumulative effects.

Priorities for discussion at the next meeting should be: offshore renewables and population structure. The Chair and the Coordinator should make a suggestion of other priorities.

> **Recommendation:** Liaison between the North Sea Group and the Noise Working Group should be encouraged in order to advance work on "policy and management" strategies. (Rec. 16)

8.3 Priorities of the Work Plan for the Coordinator

Compiling information from different sources to assess implementation of the Conservation Plan and providing Parties with this information were still considered priorities. Delegates should look at overall priorities and the NSG should instruct the Coordinator.

Another priority was the promotion of the Plan to ensure its implementation, which should be explained on the website. However, MS needed themselves to promote the Plan and the activities of the NSG in other processes, MSFD, etc.

> **Recommendation:** The North Sea harbour porpoise conservation work plan and progress to date needs to be disseminated and explained to a wider audience including stakeholders; it requires greater promotion to interested parties. (Rec. 17)

Compiling information for each action point should be done drawing on expertise from others, although some APs were more suitable than others. So far, the Coordinators and the NSG have focused on Actions 1-5, Action 6 was led by UK, Action 7 and 8 had recently been reviewed, Action 9 did not have a high priority anymore as problematic areas/fisheries were known and the focus was on the assessment of bycatch rate, Action 10 would be led by L. Ijsseldijk, Action 11 needs to involve / was in the remit of the JNWG (Joint Noise Working Group), Action 12 was covered by the work of OSPAR and SCANS – and there should be liaison with them.

9 Communication

9.1 Flow of information between coordinator and delegates/NS MS

The point was not discussed in detail. Asking simple and precise questions was a way of facilitating a better flow of information. It was also underlined that the delegates were also welcome to provide *voluntarily* any relevant information they themselves have received.

9.2 Strategy for informing stakeholders

G. Desportes chose not to participate in RAC again this year because there is a need to have concrete information to present. The RAC might not be the right forum anyway because only large-scale fisheries are represented. One way around the

lack of reliable bycatch data to be presented could be to ask the RAC to present their own information on bycatch and mitigation methods.

The group felt that it was a priority to address the information issue. The NSG members in each country should help to decide where to focus efforts. They should compile a list of fisheries of concern, and who are the most relevant organizations to talk to, and send those to the NS coordinator. The promotion of the Plan should be made by persons already working nationally with fisheries organisations. The NS *coordinator should produce a succinct and clear explanation of the Plan, restricted to the actions relevant to fisheries*, but placed in the wider context of the entire Plan. This should also be sent to EU DG Mare and to MSC.

> **Recommendation:** There is a need for involvement of relevant fishing organisations in the work of the North Sea Group. To improve dialogue in each North Sea country, an overview should be compiled of the fishermen's organisations most appropriate for stakeholder engagement. Those should then be approached at a national level to determine the best ways to develop a better dialogue. (Rec. 9)

9.3 Relationship with the ICES WGs

The group agreed that the North Sea Coordinator should continue attending the ICES WGBYC.

9.4 Workspace: update from Heidi Frisch

H. Frisch presented the ASCOBANS Workspace. Participants should see this as a discussion and information forum and were warmly encouraged to make use of it. Members receive a notice when new information has been added. A good start would be to post on it any report/publication relevant to the work of the NSG.

10 Miscellaneous

Presentation – S. Murphy: Reproductive failure in UK porpoises: legacy of pollutant exposure
Reproductive failure in mammals has been associated with exposure to polychlorinated biphenyls (PCBs), occurring either through endocrine disrupting effects or via immunosuppression and increased disease risk. Linking toxicological endpoints of reproductive dysfunction to PCB exposure in free-living marine mammal populations is difficult. To investigate further, full necropsies and determination of summed 25 chlorobiphenyl congeners (∑25PCBs lipid weight) were undertaken on 329 UK-stranded female harbour porpoises (1990-2012).

In sexually mature animals, 19.7% showed direct evidence of reproductive failure (foetal death, aborting and dystocia or stillbirth). A further 16.5% had infections of the reproductive tract and/or tumours of reproductive tract tissues that could contribute to reproductive failure. Resting mature females (non-lactating or pregnant) had significantly higher mean ∑25PCBs (18.5 mg/kg) than both lactating (7.5 mg/kg) and pregnant females (6 mg/kg), though not significantly different to sexually immature females (14 mg/kg). Using multinomial logistic regression models, Σ25PCBs was found to be a significant predictor of mature female reproductive status, adjusting for the effects of confounding variables. Resting females were more likely to have a higher PCB burden.

Health status (proxied by cause of death) was also a significant predictor, with lactating females more likely to be in good health status compared to other individuals. Based on contaminant profiles (∑25PCBs >11 mg/kg lipid), at least 48% of resting females had not offloaded their pollutant burden via gestation and primarily lactation. Where data were available, these non-offloading females were previously gravid, which suggests foetal or newborn mortality. Furthermore, a lower pregnancy rate of 50% was estimated for females that died of non-disease related (i.e. traumatic) causes of death, compared to other populations. Whether or not PCBs are part of an underlying mechanism, we used individual PCB burdens to show further evidence of reproductive failure in the North-east Atlantic harbour porpoise population, results that should inform conservation management.

11 Next SG meeting (at a location facilitating fisheries involvement)

The meeting should again take place back to back with the AC.

12 Close

The participants were reminded to provide summaries of their presentations.

Annex 1. Summary of progress in the implementation of Conservation Plan based on the 2013 Reg.. 812 report to the EU for 2012 as well as current progress – as agreed by the NS Group

Except for Actions 2 and 4: 0, no progress; 1, small progress or at experimental level; 2, steady progress; 3, fully implemented; na, not applicable; Rem, remote electronic monitoring

	Conservation Plan for HP in the North Sea: Actions	Priority		SE	DK	DE	NL	BE	FR	UK
1	Implementation of the CP: co-ordinator and Steering Committee	High		2: Coord part time, task of C and NSSG not completed						
2	Implementation of existing regulations on bycatch of cetaceans - e.g. EC 812/2004 & Habitat Directive (HD) (* Table 1ab, ICES WGBYC 2013 for year 2011)	High	Vessels requiring pingers.	yes?	18	yes?	yes?	1?	90	26-31
			% vessels using pingers	?	?	>3	0	0	0	100?
			Enforcement policy	0	?	?	na	na	na	3
			Dedicated observer prog	0	0	0	0	0	yes	yes
			Monitoring under HD	0	0	0	0	0	yes	yes
3	Establishment of BYC observation programmes on small vessel (<15m) and recreational fisheries in NS	High	Professional	0	1	0	2	0	2	2
			Recreational	0	1	na	0	0	0	na
4	Regular evaluation of *relevant* fisheries, extent of HP BYC	High	% monitoring	0	0	0	0	0	0	0
	Gillnet fisheries =>15 m vessels, dedicated, % DAS observed			0	0	0	0	0	1,4	1,8
	Gillnet fisheries <15 m vessels, dedicated, % DAS observed			0	0,2	0	? Rem	0	0,7	0,3
	Cetacean scheme appended to DCF/DCR schemes			no	yes	yes	yes	no	yes	yes
	DCF observation in 2012 in NS, % DAS observed			0	0.76	0	0	0	na	0.41
5	Review of current pingers, dev. of altern.pingers and gear modif.	High		2	2	2	2	na	1	2
6	Finalise a management procedure approach for determining maximum allowable bycatch limits	High		General progress: SCANS II & WGMME, WKBYC						
				0	0	0	2	0	0	2
7	Monitoring trends in distribution and abundance of HP in NS	High	Large scale	0						
			Reg/survey	0	SACs	3	3	3	1	1
			Reg/Model	0	0	0	0	0	0	1
8	Review of the stock structure of HP in NS	High		0	1	1	0	0	1	1
9	Collection of incidental HP data through stranding networks	Medium		1	1	1	3	3	1	3
10	Investigation of the health, nutritional status and diet of HP in NS	Medium	(mostly diet in DK, NL, BE	0	2	2	2	2	1	3
11	Investigation of the effects of anthropogenic sounds on HP	Medium		0	2	3	2	2	1	3
12	Collection and archiving of data on anthropogenic activities and development of a GIS	Medium		0	0	1	1	1	0	1

Annex 2: List of participants

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Annex 3: Agenda

1 Welcome and announcements
- 1.1 Adoption of agenda
- 1.2 Appointment of rapporteur(s)

2 Minutes of the 3rd NSSG meeting, 26 August 2013, Warsaw

3 Implementation Review: Bycatch estimation (Actions 3 and 4)
- 3.1 New information on bycatch estimates
  - 3.1.1 UK 2013
  - 3.1.2 France: Synthesis of bycatch information from French set nets between 2008-2013, with focus upon the North Sea
  - 3.1.3 The Dutch impact assessment of the effects of set net fisheries on harbour porpoises
  - 3.1.4 Others
  - 3.1.5 ICES WGBYC 2014
  - 3.1.6 Bycatch risk assessment for harbour porpoise in the North Sea: update from ICES WGBYC 2014
- 3.2 Monitoring projects
  - 3.2.1 Update on Remote Electronic Monitoring (REM) projects
    - 3.2.1.1 Danish REM projects
    - 3.2.1.2 Dutch REM project
    - 3.2.1.3 German REM project (WWF/FAF/TI-OF)
    - 3.2.1.4 Other REM projects
    - 3.2.1.5 What did we learn
    - 3.2.1.6 Recommendation for further developments
    - 3.2.1.7 Recommendation for implementation
  - 3.2.2 Other monitoring projects
    - 3.2.2.1 Danish monitoring project in recreational fisheries
    - 3.2.2.2 Dutch project in Noordzeekustzone
    - 3.2.2.3 Voluntary reporting – of any use?
    - 3.2.2.4 Others
- 3.3 Assessment of bycatch in the North Sea – the missing bits
  - 3.3.1 Missing fisheries
    - 3.3.1.1 Where do the porpoises stranded in the Netherlands and Belgium come from?
    - 3.3.1.2 UK driftnet fisheries in the North Sea
    - 3.3.1.3 The lesser fleet (vessels below 10m)
  - 3.3.2 Adequacy of the reporting to the EU
  - 3.3.3 Other matters
- 3.4 Recommendations that could also be delivered to the EC

4 Implementation review: Development of alternative mitigation methods (Action 5)
- 4.1 Update on the German projects (PAL and the alternative and ecosystem-friendly fishing gear project)
- 4.2 Update on the Dutch project (Banana pinger and)
- 4.3 Update on the UK projects (Banana pinger, ADDs)
- 4.4 Update on changes in fishing procedures (France, Germany, the Netherlands)
- 4.5 Others
- 4.6 Update on long-term effect of pingers

5 Implementation Review: Monitoring trends in distribution and abundance (Action 7)
- 5.1 Dogger Bank survey 2013 (NL)
- 5.2 Others

6 Other activities contributing to the conservation of the harbour porpoise in the North Sea:
- 6.1 EU Habitats Directive:
  - 6.1.1 Review of North Sea SCIs/SACs concerning harbour porpoises
  - 6.1.2 Progress in designing conservation objectives, management plans and conservation measures for harbour porpoises in *Natura 2000* areas
    - 6.1.2.1 "National" SACs
    - 6.1.2.2 Joint SACs
      - 6.1.2.2.1 Dogger Bank

6.1.2.2.2 Others
6.1.3 Perspective for harbour porpoise conservation in the North Sea
6.2 Update on MSFD and marine mammal indicators
6.3 Determination of safe bycatch limits for harbour porpoises
6.4 Certification schemes
6.4.1 Update on the Danish Project
6.4.2 Update by France
6.4.3 MSC requirements in term of marine mammal and PET bycatch
6.4.4 What can ASCOBANS do, so bycatch are taken into account?
6.5 Others

7 Overall progress in the implementation of the Conservation Plan (implementation table)

8 Calendar of Actions 2014-2015
8.1 Priorities of action points of the North Sea Plan
8.2 Priorities of the Work Plan for the NSSG
8.3 Priorities of the Work Plan for the Coordinator

9 Communication
9.1 Flow of information between coordinator and delegates/NS MS
9.2 Strategy for informing stakeholders
9.3 Relationship with the ICES WGs
9.4 Workspace: update from Heidi

10 Miscellaneous

11 Next SG meeting (at a location facilitating fisheries involvement)

12 Close

Annex 4.

6th Interim Report

on the Implementation of the

ASCOBANS North Sea Conservation Plan for Harbour Porpoises

INTERIM REPORT ON

THE IMPLEMENTATION OF THE ASCOBANS NORTH SEA CONSERVATION PLAN FOR HARBOUR PORPOISES - 6

with focus on progress in implementation of Action 2 and 4

August 2014

Geneviève Desportes
Coordinator of the ASCOBANS North Sea Conservation Plan for Harbour Porpoises

Solve the bycatch problem: fish wireless!

EXTRACTS

Compliance to exiting regulation - CR (EC) No 812/2004

The implementation of the Reg. 812/2004 can be summarized as very patchy in all domains as member states have not fulfilled their obligations in term of monitoring nor mitigation, and many times reporting.

As regards the North Sea and the required monitoring in trawl fishery, MS do not comply with the monitoring requirement of Reg. 812/2004. This is understandable in the case of the trawl fisheries, as this is a quite clear case that the monitoring required did not target relevant fisheries. However, MS may not comply with Reg. 812/2004 regarding driftnet fisheries.

Most countries, therefore, do not comply with the requirement of Reg. 812/2004 in term of mitigation, although the implementation of mitigation measures is progressing in some countries.

So here as well, the compliance to Reg. 812/2004 with regards to reporting is not ideal.

Compliance to exiting regulation – Habitats Directive

Obligations under HD 12(4) are two-fold: monitoring and implementation of effective conservation measures. Its scope encompasses clearly all activities where incidental capture and killing of animal species listed in Annex IV (a) occurs, and therefore in the case of harbour porpoises all kinds of fisheries, both professional and recreational.

As long as the extent of bycatch will not be reliably known in the North Sea, it will be, by definition, impossible to MS to implement conservation measures "*as required to ensure that incidental capture and killing does not have a significant impact on the species concerned*". Also "*take… conservation measures as required*" namely requires formulating explicit conservation and management objectives, which have not been agreed upon at present.

Only UK seems to monitor with dedicated observers, vessels over 12m that are required to and use pingers under Reg. 812/2004, for getting an on-site evaluation of the long-term effectiveness of pingers.

There is overall limited compliance to the Habitats Directive requirements amongst MS with regards to monitoring and assessment of the impact of bycatch on harbour porpoise populations, and consequently implementation of conservation measures as required.

Regular evaluation of all fisheries with respect to extent of harbour porpoise bycatch

As a result, Sweden and Belgium, but also Germany and the Netherlands, did not perform any marine mammal bycatch monitoring in net fisheries in the NS in 2012.

As a result, less than 0.7% of the total static and drift net effort *reported* for the North Sea is monitored for marine mammal bycatch, with less than 0.5% monitored by dedicated observers/REM. Indeed, these figures are overestimated, because an unknown but likely significant part of the fishing effort is not taken into consideration.

Except in a few sectors, the level of bycatch monitoring is very low and well below 1%, even when the DCF monitoring is included. Overall, the dedicated monitoring of bycatch is conducted at a level of 0.55% in the Channel, 0.22% in the North Sea proper and 0.28% in ICES area IIIa. In other words, well over 99% of net fishing in the North Sea is conducted without any marine mammal by catch monitoring.

Most countries do not have effort data for vessels below 10m, but this segment represents a non- negligible segment of the fleet.

A lack of data on bycatch issues within the fisheries does not indicate a lack of impact *per se*. *It is more indicative of the difficulties associated with monitoring and researching this kind of fisheries.* Difficulties include the absence of vessel position systems, log-books, designated ports and compulsory fishing authorization.

Sampling under the Data Collection Framework (DCF) can contribute to the assessment of bycatch of cetaceans and other species, but is not sufficient on its own as currently implemented by Member States.

The 2012 bycatch data also highlight clearly that the monitoring level is not adequate for assessing the extent of bycatch in the North Sea, although there is clearly a potential for unsustainable risk.

Clearly, the increased UK bycatch estimates, encompassing more fisheries than in previous years, reinforce the statement that a lack of data on bycatch issues within the fisheries does not indicate a lack of impact *per se* and reinforce the necessity to increase the monitoring level in the North Sea.

The situation in the North Sea remains unclear as only limited monitoring has been carried out since the last 1990s. These results suggest that current bycatch levels might exceed the conservation limits, but all of the caveats listed above should be borne in mind.

It also needs to be borne in mind that the effort reported and used for this Bycatch Risk Assessment is likely to be significantly under-estimated.

The present results certainly point to the necessity for further action being taken by MS in terms of monitoring and fishing effort reporting, in order to clarify the conservation status of the harbour porpoise in the North Sea.

Revision of CR (EC) No 812/2004

It should also be stressed that it is crucial to engage the fishing community in the revision process of Reg. 812/2004, if one wants to facilitate and speed up the implementation of any future regulation regarding marine mammal bycatch.

CONTENTS

1. INTRODUCTION

The ASCOBANS Conservation Plan for Harbour Porpoises in the North Sea (CPHPNS)[11] was adopted in 2009 at the 6th Meeting of the Parties (ASCOBANS 2009ab). It aims at restoring and/or maintaining North Sea harbour porpoises at a favourable conservation status, with in the shorter-term a pragmatic minimum objective to at least maintain the present situation and, if possible, improve it. The areas covered by the Plan are the Skagerrak (ICES areas IIIaN), the North Sea proper (ICES area IVabc) and the Channel (ICES area VIIed). A steering committee is in charge of ensuring the implementation of the Plan, supported by a coordinator.

The North Sea Steering Group (NSSG) has met three times, in May 2011, March 2012 and August 2013, since it was established in 2010 by AC17. Its task is "*Promote and coordinate the implementation of the Conservation Plan for Harbour Porpoises in the North Sea gather information on its implementation and the results obtained; inform the public; and evaluate the effectiveness of the Plan every three years to update it*". At each meeting, it has given itself Action Points (AP), as listed along with completion status in Annex 1.1. It has given tasks to the Coordinator and the Secretariat (Annex 1.2) and has provided recommendation to the North Sea Member States (NSMS) (Annex 1.3). It has also made recommendations in view of a future revision of the Conservation Plan (Annex 1.4) and has flagged up areas which should be taken into consideration when amending the EC fisheries regulations regarding bycatch (Annex 1.5). The activities of the coordinator since the last meeting of the Steering Group are collated in Annex 2.

One of the tasks of the NSSG and the coordinator is to review progress in the implementation of the CPHPNS. As a contribution to the fourth meeting of the NSSG, this report reviews the progress accomplished in the implementation of the CPHPNS since the last meeting of the group and overall since the implementation of the Plan by the Parties in 2009. It supplements the three previous review reports produced by the coordinators of the Plan (Leaper and Papastavrou 2010, 2011, Desportes 2012ab, Desportes 2013), each of them focusing on different actions of the Plan. This report focuses upon

- *Action 2 - Implementation of existing regulations on bycatch of cetaceans*
- *Action 4 - Regular evaluation of all fisheries with respect to extent of harbour porpoise bycatch*

in response to recommendations/Action Points 4, 5 and 7 adopted at the last meeting of the NSSG (AC21/Doc.2.2.1.a[12]), and later on adopted by the Advisory Committee AC20 (ASCOBANS 2013[13]) in 2013.

NSSG AP2013-04
In order to obtain a reliable picture of bycatch, monitoring programmes should include all set net fisheries, particularly for vessels <15m. These should cover commercial full- and part-time fisheries and recreational fisheries, as called for in Actions 3 and 4 of the Conservation Plan. Parties are encouraged to implement such programmes, considering also the latest methodologies that have been developed.

NSSG AP2013-07
The NSSG will dedicate attention in the next 1.5 years to collecting 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.

NSSG AP2013-07
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 CR (EC) No 812/2004.

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[11] http://www.ascobans.org/en/documents/action%20plans/North-Sea-Conservation-Plan
[12] http://www.ascobans.org/pdf/ac20/AC20_2.2.1.b_Report_NorthSeaCoordinator.pdf
[13] http://www.ascobans.org/sites/default/files/document/AC20_Report_inclAnnexes.pdf

2. PROGRESS IN IMPLEMENTION - ACTION 2

Implementation of existing regulations on bycatch of cetaceans

Description of Action 2 – (Extracts)

- **specific objective**: implementing existing regulations appropriately (e.g. Habitats Directive, EU Regulation 812/2004)
- **rationale**: while legislation exists (EU Fisheries Regulations) the overall level of implementation and effectiveness is unclear
- **target:** to ensure that existing regulations with respect to bycatch reduction measures are being effectively implemented and to collect data on their efficacy in reducing bycatch
- **method**: 1) through a scientifically designed and flexible observer scheme and review of existing schemes, and development and testing of reliable mitigation devices/methods; 2) consider how certification schemes could enhance the commercial value of fish caught with techniques that avoid harbour porpoise bycatch.
- **implementation-timeline**: **immediate**

Priority

- importance: high
- feasibility: high

2.1 Legal framework

2.1.1 CR (EC) No 812/2004

Regarding its application within the North Sea, Reg. 812/2004 has three components:

- Requirement of using pingers with specific technical characteristics AND monitoring and assessing the effects of pinger use overtime
- Requirement of monitoring specific fisheries, not required to use pingers, with a specific effort level
- Annual reporting to the Commission (by June 1, for the preceding year).

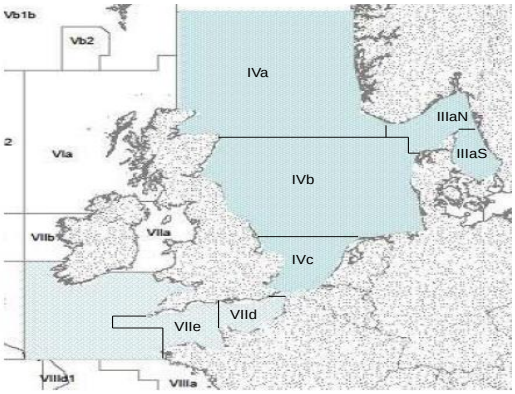
Under Reg. 812/2004, the use of pingers is only required for vessels with an overall length of 12 m or more and only in specific fisheries, geographic areas and period of the year (Table 2.1 and Figure 2.1).

In the North Sea, Skagerrak and Kattegat, bottom-set gillnet and entangling nets with meshes of 220 mm or more must be equipped with pingers year round, as well as any only bottom-set gillnet and entangling net set in strings of less than 400 m (wreck-net fishery) in the period August-October.

In the Channel (ICES VIIde), any bottom-set gillnet and entangling net are required to have pingers year round.

Table 2.1. Requirement for pinger use under CR (EC) No 812/2004 in the North Sea Figure 2.1. The areas concerned by Reg. 812/2004 are shown in the figure.

Area	Gear	Period
ICES sub area IV and division IIIa	Any bottom-set gillnet or entangling net, or combination of these nets, the total length of which does not exceed 400 meters	1 August – 31 October
ICES sub area IV and division IIIa	Any bottom-set gillnet or entangling net with mesh sizes ≥ 220 mm	All year
ICES divisions VIId and VIIe	Any bottom-set gillnet or entangling net	All year



Mandatory monitoring schemes are only required for vessels with an overall length of 15 m, and only for some areas and under specific conditions. Table 2.2 gives the requirement for the North Sea. There is also specification for the level of monitoring which must be achieved, according to fleet size.

For vessels under 15 m Reg. 812/2004 stipulates that "*MS shall take the necessary steps to collect scientific data on incidental catches of cetaceans … by means of appropriate scientific studies or pilot projects*". This applies to the same fisheries as for the mandatory monitoring schemes; for the North Sea these are given in Table 2.2.

Table 2.2. List of North Sea fisheries requiring monitoring under CR (EC) No 812/2004.
Only vessels with an overall length of 15 m or over are concerned.

Area	Gear (Vessel > 15m)
ICES sub area IV and divisions IIIa, and VIIed	Pelagic trawls (single and pairs)
ICES divisions VIIed	High-opening trawls
ICES sub area IV and divisions VIIed	Driftnets

Several recommendations amending Reg. 812/2004 have been tabled, both in the framework of the new DCF and for bringing the Regulation in line with the provisions established under the Treaty of Lisbon. The Commission's intention is to move away from a central regulation and incorporate the main elements of the Regulation (i.e. monitoring and mitigation) into other regulatory frameworks and incorporated under the new technical measures framework that will be developed as part of the reform of the CFP. Once this has been achieved, the Regulation could be repealed.

The European Parliament tabled a proposal COM (2012) 447 (AC20/Doc.3.1.d) to align the regulation with the treaty of the Functioning of the European Union (TFEU).the following wording: "*The Commission shall no later than 31 December 2015 review the effectiveness of the measures laid down in this Regulation and accompany this review with an overarching legislative proposal for ensuring the effective protection of cetaceans.*" One of the provisions is to allow for a revision of the technical specifications and condition of use of acoustic deterrent devices as defined in Annex II, thus making possible to take account of technical and scientific development. This proposal has now been agreed upon by the European Parliament and the Council and should enter into legislation in mid-2014.

A regulation laying down a prohibition on driftnet fisheries in all EU waters was tabled in May 2014 (COM(2014) 265 final)[14]. The summary of the proposed action reads as following "*Introduce a full prohibition to take on board or use any kind of driftnets as of 1 January 2015, in all EU waters and by all EU vessels. Introduce a revised and more comprehensive definition of driftnets, to close any possible loophole in existing legislation.*"

2.1.2 Habitats Directive (1992)

The Habitats Directive under HD Article 12(4) stipulates that "*MS **shall** establish a system to monitor the incidental capture and killing of the animal species listed in Annex IV (a). In the light of the information gathered, Member States shall take further research or conservation measures as required to ensure that incidental capture and killing does not have a significant impact on the species concerned*".

Harbour porpoises are listed in Annex IV(a), as are all other cetaceans species. The conservation measures are not further specified.

[14] http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014PC0265&from=EN

Obligations under HD 12(4) are two-fold: monitoring and implementation of effective conservation measures. Its scope encompasses clearly all activities where incidental capture and killing of animal species listed in Annex IV (a) occurs, and therefore in the case of harbour porpoises all kinds of fisheries, both professional and recreational.

The interpretation that recreational fisheries also have to be taken into consideration, is supported by the fact that Belgium received a request from the European Union (DG ENV; EU Pilot 3801/12/ENVI) for more information about bycatch of porpoises in recreational fisheries. It was asked if the results of the assessments in the framework of the Marine Strategy Framework Directive had led to the conclusion that there was no need to take further measures to reduce bycatch (Belgium Annual Report to ASCOBANS AC21/Inf.12.1.a).

2.2 Implementation of regulations under CR (EC) 812/2004

A review of the implementation of Reg. 812/2004 is conducted annually by ICES (ICES SGBYC 2008, 2009, 2010; ICES WGBYC 2011, 2012, 2013, 2014). ICES has also provided specific advice (2010a Item1).

The European Commission twice reviewed the implementation of EC Reg. 812/2004 (EC COM (2009) 368[15] and EC COM (2011) 578[16]). Progress and problems in the implementation also summarised comprehensively by Northridge (2011).

The implementation of the Reg. 812/2004 can be summarized as very patchy in all domains as member states have not fulfilled their obligations in term of monitoring nor mitigation, and many times reporting.

2.2.1 Monitoring

Monitoring in trawl fisheries has been implemented at a *relatively* high level by several MS in earlier years (e.g., in 2008 3-11% coverage in DK, 1.4 % coverage in SE, also high coverage in UK larger trawl fisheries). This monitoring has shown that these fisheries do not constitute, especially in the North Sea, a high risk for porpoises (See under 3.1.3), and cetaceans in general, except for the bass pair trawl fishery. Therefore, this monitoring has been reduced or stopped and sometimes redirected towards other more relevant fleet segments.

ICES (2010a) indeed noted in its advice: “There is no indication that pelagic fisheries in the North Sea currently pose a major risk to cetaceans, so the current requirement for monitoring these fisheries under Regulation 812/2004 could be relaxed, noting that some monitoring will still be undertaken under other legislation.”

Only UK report driftnet fishing effort in its annual Reg. 812/2004 report, but only for vessels under 15m. Driftnet fishing is allowed for nets <= 2,5km, although a ban in European waters is under discussion (COM(2014) 265 final)[17]. Very little driftnetting is registered, although it is known to occur. One problem could be that fishermen do not report driftnets under their specific category drift gillnets, GND, but under a wider category gillnets and entangling nets, GEN, which seems to be the case in France (Y. Morizur, pers. comm.).

As regards the North Sea and the required monitoring in trawl fishery, MS do not comply with the monitoring requirement of Reg. 812/2004. This is understandable in the case of the trawl fisheries, as this is a quite clear case that the monitoring required did not target relevant fisheries. However, MS may not comply with Reg. 812/2004 regarding driftnet fisheries.

[15] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0368:FIN:EN:PDF
[16] http://www.ascobans.org/sites/default/files/document/AC19_4-07_EC_Communication_812_2004_1.pdf
[17] http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014PC0265&from=EN

2.2.2 Mitigation measures

Implementation of bycatch mitigation measures were also found to be patchy, with still today few countries able to provide unequivocal confirmation that the obligations under Reg. 812/2004 for pinger deployment were being met. Few MS, actually, knows how many vessels are required to use /are using pingers. The elements relevant to the North Sea in terms of compliance to the regulation regarding mitigation and enforcement in 2012 are summarised in Table 2.3. The information provided in 2012 is similar to what has been reported for the last few years (ICES WGBYC 2012, 2013).

France and Belgian know with the most certainty how many vessels are using pingers, has they have not implemented (EC) Reg. No 812/2004 (2).

Table 2.3. Information regarding the compliance to Reg. 812/2004 (2): mitigation
Gear: gillnets (GN), set gillnets (GNS), driftnets (GND), trammel nets (GTR) and combined gillnets-trammel nets (GTN) na, not available. Vessels > 12m: ? no., number not known. Tool/strategy: ?, unknown; PDU, pinger detection units; Not rep., strategy not reported. Data in the table are extracted from ICES WGBYC 2014, Annex 4, Table 4b.

MS	Area	Gear	Implementation of the use of Pinger (Art. 2) in 2012 (vessels >12m)				
			No. of vessels >12		Mandatory to report utilisation in LogBook	Enforcement	
			requiring pinger	using pinger		Tool / Strategy	Reported Infringement
SE	na	na	Yes, ? no.	?	No	? / Low priority in inspection plan	none
DK	IIIa/IV	GN,GNS,GTR, m>220	18	>0	No	Hydrophones / Yes but Not rep.	
DE	24, IIIa, IV	GN	Yes, ? no.	>3	No	PDU / Not rep., 3 vessels checked in 2012	none
NL	IVabc	GNS & Wreck nets	Yes, ? no.	0			
BE	IVc, VIId	GN	1?	0			
FR	IIIa, IV, VII	GNS-GTR	90	0			
UK	VIIdefgh	GNS	22	>4	no, information from "scientific studies"	PDU / NO (but from summer 2013)	?
	Ivabc	GNS-demersal m>220	16	>0			
	IV	Wreck nets	≤3	?			

UK, which likely to date has or/and report the most efficient implementation of the regulation, both in terms of implementation and enforcement, reports the following: "*The UK continues to fully implement and enforce Council Regulation (EC) 812/2004 through the use of acoustic deterrent devices attached to fishing nets. Implementation of the regulation in the UK has involved close liaison with the industry and ongoing monitoring and support to aid compliance* [e.g. guidance to the fishing industry[18]]. *This has been led primarily by the MMO* [UK Marine Management Organisation]. *Enforcement of the regulation at sea (via pinger detection units) and at the quayside is carried out by MMO officers, the Marine Scotland Compliance and Enforcement Unit, and the Royal Navy, and has included inspections on vessels from other member states." (2014 AR to ASCOBANS*, AC21/Inf.12.1.j).

However, also the UK is unclear on how many vessels are required to use pinger for different reasons. "*The UK industry has only recently adopted the routine use of pingers and it is too early to make a proper judgment about the effectiveness of the scheme. Logbook records make it difficult to ascertain which vessels should be using pingers according to the requirements of Annex I of the Regulation. Specifically, it is unclear whether 'encircling gillnets' are addressed by Annex I and it is not possible to determine from logbook records whether*

[18] http://www.marinemanagement.org.uk/fisheries/monitoring/regulations_cetaceans.htm

vessels are using any "bottom-set gillnet or entangling net, or combination of these nets, the total length of which does not exceed 400 meters" (Northridge *et al*. 2014).

UK, in July 2013, followed by France in April 2014 have taken a derogation for using the DDD-03L. That pinger appears to be efficient in protecting 2 km of nets (so the maximum distance between pingers can be 4 km). However, France has no plan for making the use of pinger mandatory in the required fisheries (Y. Morizur, pers. comm.).

Most countries, therefore, do not comply with the requirement of Reg. 812/2004 in term of mitigation, although the implementation of mitigation measures is progressing in some countries.

2.2.3 Annual reporting to EC

In term of the annual reporting to the Commission, some of the reports are very detailed and informative (UK then France (although in French)), generating besides the information required an analysis of the situation. Others are very poor, sometimes only containing information dating from a few years back and not giving information on the fishing effort deployed in the reporting year and/or written in the native language without being accompanied with a proper translation (e.g., ICES WGBYC 2014, ICES 2014). The 2013 reports of Germany and Belgian and particularly Sweden are notable in this regard. Translations might not be required, but are essential to the work of ICES WGBYC, which review the reports.

So here as well, the compliance to Reg. 812/2004 with regards to reporting is not ideal.

2.3 Implementation of regulations under the Habitats Directive – HD 12(4)

2.3.1 Monitoring

UK is the only MS to date having implemented the bycatch monitoring of protected species as such. In France, for marine mammals in general, and harbour porpoises in particular, such monitoring is, however, part of the ObsMer monitoring programme.

Regarding harbour porpoises in the North Sea, the monitoring conducted under Reg. 812/2004 has shown that trawl fisheries do not represent a threat to porpoises. However, this is not the case for gillnet and driftnet fisheries.

Data brought under point 3.2 clearly shows that the monitoring conducted by MS, if any, is at present insufficient for getting a proper evaluation of the extent of bycatch of harbour porpoises in the North Sea at large.

As such, MS do not comply with their monitoring obligations under the Habitats Directive.

2.3.2 Implementation of conservation measures as required

As long as the extent of bycatch will not be reliably known in the North Sea, it will be, by definition, impossible to MS to implement conservation measures "*as required to ensure that incidental capture and killing does not have a significant impact on the species concerned*".

Also *"take… conservation measures as required"* namely requires formulating explicit conservation and management objectives, which have not been agreed upon at present.

Conservation measures have been implemented by some MS under Reg. 812/2004, see under 2.2.2 for details, both using pingers corresponding to the specification (Article 4) or using alternative pingers under a derogation (DDD-03L in UK fisheries).

Several MS are experimenting with alternative acoustic deterrent devices, ADDs, DDD-02 (Netherlands), Banana pinger (Denmark, Netherlands, Sweden[19], UK[20]), the Acoustic Alerting Device "PAL" (Germany[21], Denmark). For reviews see ASCOBANS BYCWG 2013 (AC20/Doc.3.1.b), 2014 (AC21/Doc.3.1.1.a Rev.1), and ICES WGBYC (2013, 2014).

Several MS are also experimenting/implementing other mitigation methods besides ADDs, such as changes in fishing practice. With regards to harbour porpoise bycacth in the North Sea, these includes reduction in net length and a closed season in the Netherlands, alternative fishing gears (Germany, Netherlands[22], Sweden[23]), excluding gillnet from some coastal areas, and reducing net height and mesh size (Germany) (ASCOBANS AC21/Inf.12.1.e, AC21/Inf.12.1.g, ICES WGBYC 2014).

2.3.2.1 Monitoring long-term effectiveness of conservation measures

One could state that monitoring the long-term effectiveness of the applied mitigation measures is embedded within the spirit/requirement of the HD 12(4). However, very little has been done for looking at the long-term efficiency of pingers in the North Sea (Area IV), nor even in fisheries having a high level of bycatch in the 1990s (e.g. Danish gillnet fisheries).

Only UK seems to monitor with dedicated observers, vessels over 12m that are required to and use pingers under Reg. 812/2004, for getting an on-site evaluation of their long-term effectiveness. It does so in Areas VIIe and VIId (Northridge *et al.* 2012, 2013, 2014), although not in Area IV.

In general, the monitoring conducted on the segment of the fleet required to use pingers (vessel >12 m) is at unsufficient levels and/or conducted under the DCF (Data Collection Framework for on board discards and catch sampling), which is not believed to be providing reliable data on marine mammal bycatch as presently designed, see Point 3.2.6 and ICES WGBYC (2013) and ICES (2013ab).

2.3.3 The case of recreational fisheries

MS have given little attention to their recreational fisheries, in term of bycatch monitoring and mitigation, although bycatch is known to occur in several countries (e.g., Denmark, Belgium, the Netherlands). In all MS, except Germany, fishing with static nets is allowed with some restriction in terms of platform or length of nets (Desportes 2013, in AC21/Doc.2.2.1.a).

Table 2.4. Programmes implemented by MS in the North Sea for collecting effort and bycatch data in marine recreational fisheries (MRF) and mitigated bycatch if required.
Germany is not included, as recreational net fisheries are not allowed there.

	Effort data	Bycatch data	Mitigation	Reference
SE	None	None	none	S. Brockmark, pers. comm. 2013
DK	None	Yes, from Spring 2012	none	Agrifish 2012
NL	None, coming in 2014	none, coming in 2014	none	M. Scheidat, pers. comm. 2013
BE	None, guestimate	none	Yes, 2001 & 2006	J. Haelters, pers. comm. 2013
FR	Interview, estimation	indirectly	none	Y. Morizur, pers. comm. 2013
UK	None, but non-angling MRF supposed to be at a very low level			K. MacLeod, pers. comm. 2013

[19] http://www.aquatecgroup.com/images/datasheets/aquatec%20group%20-%20aquamark%20848.pdf
[20] Crosby *et al.* 2013: http://www.cornwallwildlifetrust.org.uk/livingseas/dolphin_pinger_trial
[21] Conrad *et al.* 2013: http://www.elac-nautik.de/_uploads/images/pdf/L3_ELAC_Nautik_Protection_of_Marine_Mammals.pdf
[22] ASCOBANS AC20/Doc.13g.rev1
[23] ASCOBANS AC20/Doc.13.i (P)

The Danish AgriFish Agency launched in 2012 an initiative for assessing bycatch of harbour porpoise in recreational fisheries (AgriFish 2012, 2013). Fisheries inspectors checking the legality of the used equipment must report the bycatch if any and a mandatory field has been included for this purpose in their reporting scheme. A total of 1840 checks of recreational fishing gear were conducted in 2012 and no harbour porpoise was reported bycaught (AgriFish 2013). However, the report does not indicate the inspection strategy.

In 2013, the Netherlands conducted an impact assessment[24] on the effects of set net fisheries on the conservation of harbour porpoises in the Natura 2000 area Noordzeekustzone. For this assessment, existing data on bycatch in set nets, both commercial and recreational were analysed (AC21/Inf.12.1.g). The report of the study is in Dutch and the results on recreational fisheries were not communicated further. The 2014 Dutch report to ASCOBANS (AC21/Inf.12.1.g) does not indicate whether the programme for collecting effort and bycatch data in recreational fisheries has been implemented.

Belgium is the only country annually reporting bycatch in recreational fisheries (and as such, known to the EU – see under 2.1.2).

The analysis and results of the French telephone survey designed to identify and qualify pressure of recreational fisheries have not been made publicly available (Y. Morizur, pers. comm.).

MS did not report on any initiative towards the mitigation of harbour porpoise bycatch in recreational fisheries since the adoption of the Conservation Plan. However, Belgium has twice implemented mitigation methods in recreational fisheries. In 2001, Belgium banned recreational fishing with gill nets below the low water line (JO of 14 Feb. 2002) as a measure to protect marine mammals and particularly porpoises. Further measures were taken in 2006 (JO 28 Dec. 2006), limiting the kind of nets, their height and length (ASCOBANS AC14/Doc.19p).

There is overall limited compliance to the Habitats Directive requirements amongst MS with regards to monitoring and assessment of the impact of bycatch on harbour porpoise populations, and consequently implementation of conservation measures as required.

[24] http://www.rijkswaterstaat.nl/images/NEA%20Staandwantvisserij%20-%20Imares_tcm174-363163.PDF

3. PROGRESS IN IMPLEMENTATION - ACTION 4

Regular evaluation of all fisheries with respect to extent of harbour porpoise by-catch

Description of Action 4 – (Extracts)

- **specific objective**: **evaluate bycatch levels in all relevant fisheries**
- **rationale**: although mitigation measures are in place for some fisheries, it is essential to assess, at regular intervals, whether those measures are achieving the desired goals or require adjustment
- **target:** to estimate levels of bycatch of harbour porpoises in the North Sea at regular intervals to enable mitigation measures to be reviewed and if necessary modified
- **method**: analyse data provided by Range States/Parties from observer schemes and elsewhere (e.g. from strandings, see Action 9) on bycatch and fishery data and incorporate this into a population dynamics modeling framework
- **implementation-timeline**: **immediate, and at intervals of 3-5 years**

Priority

- importance: high
- feasibility: high/medium

3.1 Legal framework

3.1.1 CR (EC) 812/2004

Under Reg. 812/2004, mandatory monitoring schemes using observers are only required for vessels with an overall length of 15 m or over, and only for some areas and under specific conditions, as given in Table 2.2 for the North Sea. There is also specification for the level of coverage that must be achieved, according to fleet size. Similarly, the collection of scientific data on incidental catches of cetaceans for vessels below 15 m is only required for the same fisheries.

This means, in particular, that there is no mandatory or 'scientific' monitoring required under CR (EC) No 812/2004 for any gillnet fisheries in the North Sea at large, nor even in ICES area IV, where a high bycatch rate had been estimated in the 1990s. Driftnet fisheries conducted in area IV and VIIed by vessels larger than 15, should be monitored, but it is unclear whether such fisheries occur (see under 2.1.2).

3.1.2 Habitats Directive (1992)

Under the Habitats Directive, bycatch monitoring is a requirement under Article 12(4) "*MS **shall** establish a system to monitor the incidental capture and killing of the animal species listed in Annex IV (a). In the light of the information gathered, Member States shall undertake further research or conservation measures as required to ensure that incidental capture and killing does not have a significant impact on the species concerned*".

3.1.3 ASCOBANS Conservation Plan (2009)

Action 4 of ASCOBANS Plan has a similar scope to that of the HD and is asking for a '*regular evaluation of all fisheries*', although its specific objective limits the evaluation of bycatch levels to all *relevant* fisheries.The task comes as Action no 4, with *Importance* rated as high, but acknowledging that feasibility is may not be straightforward. It stipulates that this evaluation should be immediate – i.e. starting in 2009, and renewed at intervals of 3-5 years.

Taking into account the results of the monitoring carried out under CR (EC) 812/2004, MS can argue that trawl fisheries are not relevant fisheries for harbour porpoise bycatch in the North Sea. ICES WKREV812 (2011) concludes '*There appears to be little evidence that trawl (including pelagic trawl) fisheries provide a threat to harbour porpoises in the Baltic or elsewhere suggesting that any observational effort should be placed on gillnet fisheries*' and '*Concerning pelagic trawl fisheries, it is clear that most of these present little or limited threat to cetacean populations and a large number of fishing trips and days at sea have been monitored under Regulation 812/2004 without any cetacean bycatch having been observed. There is a clear case to refocus monitoring activity*'. Relevant fisheries under the Plan can therefore be limited to net fisheries.

3.1.4 Expectations

Considering this legal context and the known and largely recognised risk of net fisheries to harbour porpoise, one could assume that NSMS have given a high priority to the task of monitoring net fisheries with respect to extent of harbour bycatch and that, five years after the adoption of the Conservation Plan, a clear picture of the extent of harbour porpoise bycatch in the North Sea is starting to emerge.

3.2 Monitoring of marine mammal bycatch in the North Sea

3.2.1 Monitoring tools

North Sea countries use various tools for fulfilling their monitoring obligations regarding marine mammal bycatch, as illustrated in Table 3.1. UK has since 2005 established a dedicated marine mammal observer scheme. In France, the program OBSMER manages all the observations required under various fishery regulations, including 812/2004, and this includes a strict and prioritised marine mammal observer scheme for metiers with known risk of marine mammal bycatch. The monitoring performed in net fisheries in area VII and IVc (not required under Reg. 812/2004) is included under this programme. These two countries are at present the only ones running dedicated monitoring of marine mammal bycatch. Some countries have, in recent years, appended a marine mammal observer scheme to the DCF monitoring scheme (DK, DE, NL, FR, UK), others do not (BE, SE) – but in most if not all cases, with inadequate sampling effort, see below and particularly under 2.2.2 and 3.2.6.

Table 3.1. Methodologies used for monitoring marine mammals in the NS net fisheries
GNS, gillnetter; d.a.s, days at sea; IDW, inner Danish waters.

	Dedicated marine mammal observer scheme	**Marine mammal observer scheme appended to the DCF**	**Remote Electronic Monitoring (REM) in the North Sea (ICES areas VIIed, IV and IIIa)**
SE	Yes (2006-2008) No (2009-2012)	No (2009-2012)	(One project in the Baltic in 2008) A project aborted in 2010
DK	Yes (2006-2008) No (2009-2012)	Yes (2011-2012) (No for trawl fishery)	1 GNS in IVb and IIIa in 2010-2011 12 d.a.s on 1 GNS >15m in IIIa in 2012. (Other projects in the Baltic Sea and IDW)
DE	No (all years)	YES (2008, 2010-2012) No (2009)	
NL	No (all years)	Yes (2008-2012)	1 GNS< 10m in IVc in 2011, 24 d.a.s From Dec. 2012-2015, 12 GNS < 15m in IVc
BE	No (all years)	No (2009-2012)	
FR	Yes, since 2008 FILManCet (Nov. 2008-2010), OBSMER (Apr. 2011-present)	Yes (2010-2012)	
UK	Yes, since 2005 + Protected Species monitoring	Yes (2010-2012)	

3.2.2 Overall monitoring in 2012

As mentioned above, there is no mandatory monitoring in net fisheries in the North Sea (NS) at large (VIIde, IV and IIIa) under CR (EC) No 812/2004. Consequently, and although it is mandatory under the HD, MS conduct very limited marine mammal bycatch monitoring in net fisheries in the NS, as clearly illustrated in Table 3.2.

Germany and the Netherlands did not cover any net fisheries within the DCF monitoring in 2012. **As a result, Sweden and Belgium, but also Germany and the Netherlands, did not perform any marine mammal bycatch monitoring in net fisheries in the NS in 2012.**

Denmark monitored 0.8% of its net fishing effort through the DCF and 0.1 % using REM, with no bycatch reported in both cases. UK conducted a similar level of monitoring, but 60% was done by dedicated observers. France had also a similar level of dedicated monitoring, all under the programme ObsMer.

As a result, less than 0.7% of the total static and drift net effort *reported* for the North Sea is monitored for marine mammal bycatch, with less than 0.5% monitored by dedicated observers/REM. Indeed, these figures are overestimated, because an unknown but likely significant part of the fishing effort is not taken into consideration (see point 3.2.5.).

Table 3.2. Overall level of marine mammal bycatch monitoring in net fisheries (set and drift nets) in the North Sea at large (ICES areas VIIed, IV and IIIa) in 2012
Metier level 3 "Nets" here regroups the following gear categories[25]: gillnets (GN), set gillnets (GNS), driftnets (GND), trammel nets (GTR) and combined gillnets-trammel nets (GTN). DCF, Data Collection Framework for on board discards and catch sampling; REM, remote electronic monitoring; OM, dedicated observation conducted under the French programme ObsMer; DO, monitoring conducted by dedicated marine mammal observers.

Data are extracted from the 2013 MS annual reports on the implementation of CR (EC) 812/2004 for the calendar year 2012 (DK, Agrifish 2013, table 5.2; DE, Friedrichsen 2013 [EN], text 7. and annex 1 table 2; NL, Couperus 2013, table 3; BE, Verhegghen 2013, text 1.; FR, Morizur et al. 2013, table on pages 21-24, UK, Northridge et al. 2013, tables 5.2 and annex 2 table 2.2). In the case of the German report, it is assumed that the data given in Annex 1, 2nd table are data for Metier Level 3 - nets, although it is not indicated to which gears the data refer to in the English version. For Sweden the data are taken from ICES WGBYC (2014), as no effort data are given in the annual report (Anonym 2014).

Countries	Metier level 3	Days at sea (DAS)	Days observed		Method	Observed ByCatch HP
			n	%		
Sweden	Nets	884	0	**0**		
Denmark	Nets	10572	80	**0,76**	DCF	0
			12	**0,11**	REM	0
Germany	Nets	1778	0	**0**		
Holland	Nets	3152	0	**0**		
Belgium	Nets	215	0	**0**		
France	Nets	29695	212	**0,71**	OM	4
UK	Nets	38186	109	**0,29**	DCF	0
			155	**0,41**	DO	7
All	**Nets**	**84482**	**379**	**0,45**	**DO/OM/ REM**	**11**
			189	**0,22**	**DCF**	**0**
			568	**0,67**	**All**	**11**

[25] Definition and classification of fishing gear categories, FAO 1990: http://www.fao.org/docrep/008/t0367t/t0367t00.HTM

3.2.3 Level of monitoring per fisheries segment

Table 3.3 provides a detailed picture of the bycatch monitoring by areas, vessel size and gears and gives the methodology used. As indicated under Table 3.2, for the purpose of the present report most of the effort data were directly extracted from the MS Annual Reports to the EU, but are not very detailed there, except for Denmark, France and UK.

Except in a few sectors, the level of bycatch monitoring is very low and well below 1%, even when the DCF monitoring is included. Overall, the dedicated monitoring of bycatch is conducted at a level of 0.55% in the Channel, 0.22% in the North Sea proper and 0.28% in ICES area IIIa. In other words, well over 99% of net fishing in the North Sea is conducted without any marine mammal by catch monitoring.

Besides some countries not conducting any monitoring in the North Sea in 2012 (Sweden, Holland, Germany and Belgium), some fishery segments are particularly poorly monitored by the other countries. In the North Sea proper, these include the smaller Danish gillnetters, the larger French trammel netters, and the larger British gillnetters and trammel netters. In the Channel, those segments include the British drift-netters and smaller gillnetters.

Only UK reports monitoring in the driftnet fisheries, although driftnetting occurs in most countries in coastal areas, mostly by smaller boats and at an unknown level. Masters (2014) notes "It was not possible to obtain ant estimation for the total number of driftnet vessels operating in this way across EU waters."

It is worth noting that, although no mandatory or 'scientific' monitoring is required for any gillnet fisheries in the North Sea under Reg. 812/2004, driftnet fisheries, however, required monitoring in Areas IV and VIIed.

Since fishing effort data are lacking for vessels below 10m in most countries, the level of monitoring indicated in Table 3.4 for vessels below 15 m is clearly overestimated (see point 3.2.5).

3.2.4 2012 – exceptional in term of low bycatch monitoring?

The monitoring level in 2012 is not an exception. ICES SG/WGBYC keeps repeating that monitoring is patchy, uneven, and often at levels so low in many segments that this prevents reliably extrapolating to the fishery segment.

If one looks at Annex 4, Table 4f of ICES WGBYC (2014), which report the 2012 bycatch estimates stratified by fishing area, vessel size and métier, there are 35 entries reporting the number of marine mammals observed bycaught. In less than 23 % of these, is there an extrapolation reported by the MS for the fishing segment.

ICES WGBYC (2014) notes: "*Porpoise bycatch in the North Sea and adjacent waters has been monitored for over 20 years, but a comprehensive assessment of the scale of bycatch in this area has not been achieved. This is because bycatch monitoring has been carried out in specific métiers and by individual Member States over a long period of time, resulting in a series of bycatch rate estimates for specific fishery sectors which covers only the minority of all gillnet fisheries in the region.*"

Table 3.3. Level of marine mammal bycatch monitoring in the North Sea in 2012, detailed by area, vessel size, metier and methodology used
The blue colour indicates sums of segments. The yellow background indicate segments where the monitoring effort is higher than 1%, the purplish red background underlines segments where the monitoring effort is less than 0.3%.

	Metier Level 3/4	Vessel size	VIIde				IV				IIIa			
			Day at sea				Day at sea				Day at sea			
		m	Effort	Obs.	Obs. %	Meth.	Effort	Obs.	Obs. %	Meth.	Effort	Obs.	Obs. %	Meth.
Sweden	**Nets**	**na**	**0**								**884**	**0**	**0**	
Denmark	All Gillnet (GN)	<15	0				3148	5	0,16	DCF	3168	57	1,80	DCF + 21% REM
		>=15	0				4094	30	0,73	DCF	162	0	0,00	
	Net, Total DCF		**0**				**7242**	**35**	**0,48**	**DCF**	**3330**	**57**	**1,71**	**DCF+REM**
Germany	**Nets**	**>=10**	**0**				**1672**	**0**	**0**		**106**	**0**	**0,00**	
Holland	Nets		0				26	0			0			
	Set gillnet (GNS)		0				2838	0			0			
	Trammel net (GTR)		0				288	0			0			
	Net	**na**	**0**				**3152**	**0**	**0**		**0**			
Belgium	**Set gillnet (GNS)**	**na**	**66**	**0**	**0**		**149**	**0**	**0**		**0**			
France	Set gillnet (GNS)	<15	7812	35	0,45	DO	6	0	0,00		0			
		15-24	613	4,5	0,73	DO	0				0			
	Trammel net (GTR)	<15	16850	132,5	0,79	DO	2666	11	0,41	DO	0			
		15-24	1397	28	2,00	DO	351	1	0,28	DO	0			
	Nets, Total DO		**26672**	**200**	**0,75**	DO	**3023**	**12**	**0,40**	**DO**	**0**			
UK	Set gillnet (GNS)	<15	23627	23	0,10	DO	3582	27	0,75	DO	0			
		>=15	145	1	0,69	DO	238	0	0,00	DO	0			
	TangTrammel net (GTN)	<15	5362	60	1,12	DO	773	7	0,91	DO	0			
		>=15	149	29	19,46	DO	1096	0	0,00	DO	0			
	Driftnet (GND)	<15	2059	5	0,24	DO	1155	3	0,26	DO	0			
	Nets, Total DO		**31342**	**118**	**0,38**	DO	**6844**	**37**	**0,54**	**DO**	**0**			
	Set gillnet	na	*23772*	27	0,11	DCF								
	Trammel net	na	*5511*	80	1,45	DCF								
	Driftnet	na	*2059*	2	0,10	DCF								
	Nets, Total DCF		***31342***	**109**	**0,35**	DCF								
ALL	**NETS**	**All**	**58080**	**318**	**0,55**	**DO**	**22082**	**49**	**0,22**	**DO**	**4320**	**12**	**0,28**	**REM**
				427	**0,74**	**ALL**		**84**	**0,38**	**ALL**		**57**	**1,32**	**ALL**

3.2.5 Largely under-reported fishing effort for North Sea net fisheries

It is worth underlining that the effort registered and reported for net fisheries in the North Sea at large is less than the actual fishing effort, and likely significantly under-reported for at least three reasons:

1) **Most countries do not have effort data for vessels below 10m, but this segment represents a non- negligible segment of the fleet.** As example,

   - Germany has no effort data for vessels <=10m, which are not required to keep a logbook and have to record their catches only in monthly landing declarations (DE, AR 812/2004 2013) and part-time fishermen do not have to report effort. The German gillnet fleet in the North Sea was composed in 2008 of 30 vessels <7.5m, 20 vessels between 7.5-15m, and only a single one >15 m (Kock 2010).
   - The same is true for Denmark, where vessels <=10m and part-time fishers do not have to report fishing effort.
   - In the UK, only vessels greater than 10m are obliged to fill out logbooks. Some smaller vessels fill in logbooks on a voluntary basis, and port officials record, then, the number of days at sea by these boats. In 2010, of the 622 UK *registered* fishing vessels using gillnets in 2010 in VIIefghj, only 22 of these were over 12m (Northridge[26]).

In this matter and although the fleet of MS is composed of other gear types besides drift- and set net, it is informative to look at the size composition of the MS fleet in 2012 (Table 3.4). Clearly, in all countries the great majority of the fleet is composed of vessels below 10m length and their fishing effort may be substantial. In the case of the UK, data from Masters (2014) indicate that the effort by vessel 10m and below constitutes 53% of the total drift and fixed net effort, while the value of their landings represents 40% (Table 11 and 12 of Masters 2014).

In the UK, driftnet fisheries operate in Areas IVbc, VIIed and VIIf (Bristol Channel) and in a number of estuaries (Masters 2014). UK had 286 and 246 vessels under 10m reliant upon drift and fixed net in 2011 and 2012 respectively, with an average of 87 and 86 days at sea (Masters, 2014[27]), i.e. equivalent in 2012 to 21,156 days at sea in total – although not all in the North Sea.

Table 3.4. EU fishing fleet by vessel length in 2012

Extracted and modified from Masters (2014). Source Eurostat, Marine Management Organisation

MS	8.00m and under	8.01 - 10.00m	10.00m and under	10.01-15.00m	15.01m and over	Total	% Fleet <10m
SE	631	344	**975**	294	125	1,394	**70**
DK	1,713	437	**2150**	306	287	2,743	**78**
DE	980	170	**1150**	137	264	1,551	**74**
NL	220	88	**308**	67	475	850	**36**
BE	-	-	**-**	11	201	212	**0**
FR	3,672	1,524	**5196**	1,186	761	7,143	**73**
UK	3,474	1,558	**5032**	695	679	6,406	**79**

[26] Simon Northridge, Acoustic deterrents in UK gillnet fisheries: acoustic deterrents_UK_Northridge.pdf
[27] http://www.devonandsevernifca.gov.uk/sitedata/Misc/driftnetreport.pdf

2) The effort in net recreational fisheries in the different countries is unknown, but also adds to the overall fishing effort in net fisheries (In Germany, recreational net fishing is not allowed; in UK, the level is thought to be very low compared to angling).

3) ICES WGBYC (2014) speculated over the completeness of fisheries data held by ICES DataCentre that ICES WGBYC uses to assess the extent of marine mammal bycatch and other protected species. Members of the DataCentre expressed the likelihood that MS only provide the required 80% of sampled effort/data in accordance with DCF requirements based on landings, cost or total effort (WGBYC 2014). ICES WGBYC (2014) noted that "*this 80% requirement has implications for determining impact of bycatch of protected species, as sampled effort which detects such bycatch may not necessarily be submitted to ICES*". It was concluded that "*it is not currently possible for ICES to provide comprehensive fishing effort data*".

ICES WGBYC (2014) also notes that "fishing effort data for gillnet fisheries are not available in any useful format for all the EU Member States and Norway. Data provided at the workshop are probably the most complete that are available for the North Sea, but were not available for Norway, Germany or Belgium".

As rightly noted by Masters (2014) for driftnet fishing in the UK, but which can be generalised to the lesser segment of the fleets and the fleet as a whole, **"a lack of data on bycatch issues within the fisheries does not indicate a lack of impact *per se*. *It is more indicative of the difficulties associated with monitoring and researching this kind of fisheries.*" Difficulties include the absence of vessel position systems, logbooks, designated ports and compulsory fishing authorization.**

3.2.6 Problem in using DCF as a tool for marine mammal bycatch monitoring

Some of the NS MS are solely using DCF observers for fulfilling their monitoring obligations towards marine mammal bycatch. Others are using such observers to supplement their dedicated monitoring effort. ICES WGBYC (2011) noted that '*While such observers are undoubtedly providing useful information, some difficulties have also arisen. In fisheries where bycatch is a rare event, and there is much other sampling work to be conducted by the observer, bycatch events may be easily missed due to the priority of other tasks*'.

PETS (Protected and Endangered Species) monitoring is not always mandated under the DCF (e.g. CR (EC) No 199/2008), although recorded by some. Some MS have appended a marine mammal observer scheme to the DCF protocol (see Table 3.1).

One problem is that the many different tasks that the DCF observers have to perform have very different aims as well as different practical locations - discards, biological sampling (sometimes under deck), and bycatch monitoring incl. monitoring of bycatch falling out of the net. Protocols are not always clearly prioritizing the tasks, which raises concerns regarding data consistency and validation, with e.g. the problem in differentiating between '*0*' bycatch and '*not recorded*'. If bycatch monitoring is done under the DCF, ICES WKBYC 2013 emphasizes the need for strict protocols and priorities for the observers (limiting the tasks), for proper training and for an adequate sampling manual and review of problems and solutions.

There are also conflicting priorities in allocation of métiers, as the DCF programme´s main purpose is to monitor the discards of fish. Net fisheries have low national priority under the DCF in any country because they mostly do not generate much discard, but they are the gears most associated with the bycatch of harbor porpoises. AS an example AgriFish (2012) reports that in DK in 2011, the bulk of the DCF observer coverage was in bottom trawls and Danish seines as these fisheries have been shown to have the largest quantities of discard. This explains in part why gillnet fisheries have been so poorly covered by MS only monitoring marine mammal bycatch through DCF programmes.

The advice that ICES delivered to the EU in April 2013 on monitoring schemes and use of the DCF for monitoring marine mammal bycatch (ICES 2013a) can be summarized as follows (ICES WGBYC 2014):

"Sampling under the Data Collection Framework (DCF) can contribute to the assessment of bycatch of cetaceans and other species, but is not sufficient on its own as currently implemented by Member States*. Not all fisheries are adequately covered and many issues, including design and sampling protocols would need to be modified /extended if DCF monitoring was to be the sole source of information. Monitoring under Regulation 812/2004 is much more specific for cetaceans, and has included the use of dedicated observers and remote electronic video recording. Development of remote electronic video recording seems likely to be a cost-effective way of assessing bycatch in the future".*

Indeed studies in Denmark and elsewhere have shown that remote electronic monitoring (REM) was a cost effective way of fully documented fisheries and monitoring discard and bycatch and also on smaller vessels (e.g., Kindt-Larsen *et al*. 2011, 2012).

3.3 Observed and estimated bycatch level in the North Sea

3.3.1 Recent estimate

3.3.1.1 WGBYC

The observed bycath of harbour porpoise in the North Sea in 2012 reported by MS is given in Table 3.4 by fishing area and métier. A number of harbour porpoise bycatch events with and without pingers were reported for the North Sea and combined for providing bycatch figures for each stratum.

Table 3.4 also gives the bycatch estimates for the specific fishery segments, both provided by MS and extrapolated by WGBYC. Extrapolated bycatch estimates were based on number of animals divided by total observed days at sea multiplied by total effort in days at sea for a given stratum. The reliability of the extrapolated figures likely varies among the different strata, some being based on very low observer coverage. If they cannot be used as reliable estimate of bycatch, at least they may be used to highlight strata requiring further monitoring.

The 2012 bycatch data also highlight clearly that the monitoring level is not adequate for assessing the extent of bycatch in the North Sea, although there is clearly a potential for unsustainable risk.

Table 3.4. Bycatch of harbour porpoise (Hp) as reported by MS for the North Sea in 2012
The information in grey is the information reported by MS, the information in green is the information extrapolated by WGBYC (Modified from ICES WGBYC 2014)

				Metier		Effort (day at sea)			Bycatch estimate			
Species	MS	ICES Area	Vessel size (m)	Level 4	Level 5	Total	Obs.	No. Hp	Provided	Extrapolated WGBYC	Monitoring level %	Porpoise per observed day
Ph	FR	IVc	<15	Trammel net (GTR)	Demersal fish	2659	11	2		483	0,41	0,18
Ph	FR	VIIe	15-24	Trammel net (GTR)	Demersal fish	876	17	2		103	1,94	0,12
Ph	UK	VIIe	<15	Set gillnet (GNS)	Demersal fish	3035	2	2		3035	0,07	1,00
Ph 5, Dd 2, Gg1	UK	VIIe	>15	Set gillnet (GNS)	Demersal fish	143	29	5		25	20,28	0,17

Notable extrapolated bycatch estimates include 3035 harbour porpoises in a UK gillnet fishery in the western Channel that UK has previously mentioned as one of the principal areas of concern for cetacean bycatch (e.g.

Northridge *et al*. 2012, 2013). Such coverage of 0.07% clearly provides a highly inaccurate estimate of bycatch, but this estimate highlights a stratum requiring urgent further monitoring.

Another notable extrapolated bycatch estimate is 483 harbour porpoises in a French trammel net fishery (vessel <15m) in the southern North Sea (Area IVc), with a coverage of 0.4%.

Another notable bycatch rate in 2011 - not associated with an extrapolation as not thought to be representative - is six porpoises caught in 24 days at sea observed by REM in a Dutch set gillnet fishery in the southern North Sea by a vessel of <15m (Couperus 2012).

Again, this bycatch rate may not be reliable, but certainly point to the fact that the smaller segment of the fleet (vessels <15m) also catch porpoises and require a higher monitoring level, so the extent of bycatch in this segment can be reliably assessed.

It is worth noting, as can be seen in Table 3.2, that in the North Sea at large, bycatch events have exclusively been reported by dedicated marine mammal observers and not through DCF programmes. In other areas, the majority of the bycatch events are similarly reported by dedicated observers. Northridge *et al*. (2013) state in the UK annual report for 2012: "*it is worth noting that during 2012 in 1064 non-dedicated sea days conducted under the English and Northern Irish discard programmes, no marine mammal bycatch was recorded. By comparison, 33 marine mammals were observed bycaught in 414 dedicated sea days conducted under the protected species bycatch programme in 2012. A similar pattern was evident in the 2011 data. These figures are likely to be influenced by the proportion of different gear types monitored and by the specific duties required of the observers in each programme. Nevertheless it highlights the importance of designing and optimising monitoring programmes specifically for purpose.*"

This pattern is again observed in the 2013 data (Northridge *et al*. 2014) and the authors note "*207 non-dedicated monitoring days were conducted during 2013 in a variety of static net fisheries under the English and Northern Irish discard sampling programmes (Table A2.2). It is worth noting that no cetacean bycatch were recorded despite the fact that many of the fisheries sampled are the same as those sampled by dedicated observers under the bycatch programme and from which we have several records of cetacean bycatch occurring in 2013 (26 in 2013)*."

3.3.1.2 UK – Annual Report to ASCOBANS based on bycatch estimate for 2013

The UK Annual Report to ASCOBANS (AC21/Inf.12.1.j) mentioned that the latest UK cetacean bycatch report for 2013 as required under EU Reg. 812/2004[28] suggests a large increase in estimated porpoise bycatch, not primarily due to an increase in direct observations, but rather the result of the inclusion of new data for the year 2013. Observer days covered 166 trips (346 days) on static gear vessels, of which 18% were in the North Sea (Area IV).

Among the static gears sampled, 25 days were categorized as drift nets and 321 as fixed nets. The levels of porpoise bycatch by the UK fleet in UK waters in 2013 is estimated to be between 1600-1900 individuals per year (18 actual observed porpoise bycatch incidents), which is significantly higher than in previous years where levels had been estimated at ca. 800 individuals per year. However, bycatch estimates for other species have remained consistent with previous years.

AC21/Inf.12.1.j notes "*There are several reasons for this estimated increase in harbour porpoise bycatch. Firstly, all UK gillnet fisheries have now been included in the assessment, whereas in previous years estimates*

[28] http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=18535

were only included for those fisheries where sufficient sampling had been undertaken. Extrapolation of observed bycatch rates to all peripheral areas and the assumptions made relating to fishing effort introduces a greater degree of uncertainty into the 2013 estimates. It is also likely that bycatch has been overestimated in some areas, notably ICES Area VIId where observed bycatch rates remain lower than other Area VII sub-areas. Secondly, porpoise bycatch rates may have actually increased in some areas over the past decade – although the trend is difficult to quantify at this time. Thirdly, bycatches have been observed in some fisheries (e.g. drift nets and light gillnets for flatfish such as sole) that were not previously seen due to a lower sampling frequency. These métiers were excluded from previous estimates."

Clearly, the increased UK bycatch estimates, encompassing more fisheries than in previous years, reinforce the statement that "a lack of data on bycatch issues within the fisheries does not indicate a lack of impact *per se*" and reinforce the necessity to increase the monitoring level in the North Sea.

3.4 Bycatch risk assessment

Porpoise bycatch in the North Sea and adjacent waters has been monitored for over 20 years, but a comprehensive assessment of the scale of bycatch in this area has not been achieved (ICES WGBYC 2014). The ICES Workshop WKRev812 (ICES, 2010b) suggested that to make progress in assessing porpoise or other protected species bycatch, it should be possible to compile existing data on fishing effort, with whatever bycatch rate estimates are available for the general area so as to provide an indication of whether or not these levels of bycatch rate might pose a conservation threat, given the present fishing effort. One way of doing this is to use the Bycatch Risk Assessment (BRA) approach "*Given a species abundance estimate and a bycatch reference limit, as well as an estimate of total fishing effort, one can ask what overall bycatch rate would be needed to exceed the bycatch reference limit and then decide whether or not this is feasible*" (ICES WGBYC 2014).

Problems inherent to the fishing effort data and reference level (reference level per se, underlying abundance estimate, bycatch rate estimates) are discussed in detail in ICES WGBYC (2014). It is not the purpose of this report to discuss them further. It is only to report the approach presented in ICES WGBYC (2014), using updated and corrected fishing effort data taken from the national annual reports to the EU (see legend under Table 3.2), as the effort data used in ICES WGBYC (2014) clearly were not complete.

The reported fishing effort for gillnet (drift gillnets, trammel nets and tanglenets) in ICES Area IV and IIIa in 2012 is summarised from Table 3.3 in Table 3.5.

Table 3.5. Fishing effort (Days at sea, DAS) for gillnets (drift, trammel and, tangle- nets) in ICES Area IV and IIIa in 2012. *For Norway the value used was provided by ICES WKREV812*

Fishing area	IV	IIIa	Total (DAS)
NO	9011	0	9011
SE	0	884	884
DK	7242	3330	10572
DE	1672	106	1778
NL	3152	0	3152
BE	149	0	149
FR	3023	0	3023
UK	6844	0	6844
TOTAL	**31,093**	**4,320**	**35,413**

The overall bycatch rate (animals per day) that would be needed to exceed bycatch limits calculated under different reference limit methods at current levels of fishing effort for gillnets fisheries (35,423 DAS), are given

in Table 3.5. ICES WGBYC (2014) collated bycatch rate estimates for 58 fishery strata in Areas IV and IIIa (dating back to 1995). They range from zero to 2.77 porpoises per day at sea, with an overall bycatch rate of 0.139. This overall bycatch rate is higher than the level of 0.104 porpoises per day that would result in a 1.7% take based on the reported levels of fishing effort (see Table 3.5).

Table 3.5. Overall bycatch rate associated with bycatch limits under different reference level limit in the North Sea (Areas IV and IIIa)
Reference level limits for porpoises in the North Sea are based on Scheidat et al. (2013), using an abundance estimate of 216,400 and specific assumptions

Reference limit method	Bycatch limit	Associated overall bycatch rate Considering 35,413 DAS
ASCOBANS 1.7 %	3679	0.104
ASCOBANS 1 %	2164	0.061
PBR, Potential Biological Removal	1246	0.035
CLA, Catch Limit Algorithm	840	0.023

ICES WGBYC (2014) pointed out that "this overall mean of 0.139 is probably misleading as it is strongly influenced by sampling focused on turbot and other fisheries where bycatch rates are known to be high". Looking at the spread of the 58 bycatch rates, 38% exceed the 0.023 level (CLA reference limit), 29% the 0.035 level (PBR reference limit), 26% the 0.061 level (% reference limit) and 24% the 0.104 level (1.7% reference limit).

It also needs to be borne in mind that the effort reported and used for this Bycatch Risk Assessment is likely to be significantly under-estimated, as explained in point 3.2.5.

3.5 Outlook

In summary, and as noted again in the UK Annual Report to ASCOBANS (AC21/Inf.12.1.j, **"the situation in the North Sea remains unclear as only limited monitoring has been carried out since the last 1990s".**

But, as underlined by ICES WGBYC (2014), with the data now collected, it cannot be said that bycatch does not represent a conservation risk for harbour porpoise in the North Sea. ICES WGBYC (2014) notes **"These results suggest that current bycatch levels might exceed the conservation limits, but all of the caveats listed above should be borne in mind."**

The present results certainly point to the necessity for further action being taken by MS in terms of monitoring and fishing effort reporting, in order to clarify the conservation status of the harbour porpoise in the North Sea.

This was already the advice of ICES to the EC in 2010 (ICES 2010a, Item3), when for harbour porpoises in the North Sea and Skagerrak, it was recommended to "*enhanced short-medium term observation to decide appropriate actions*".

Four years later, ICES (2014) in its last advice to the EC reiterates the need for further and better data "A preliminary assessment of overall harbour porpoise bycatch rates in the North Sea was carried out using information gathered since 1995. This assessment indicated that bycatch rates in some fisheries may be above any proposed reference limits, but the uncertainty is large. There may also be biases in the choice of fisheries to monitor towards fisheries with a higher bycatch. **Better quality data on bycatch rates and fishing effort from more fisheries is required from EU Member Countries before this assessment can be refined and conclusions drawn as to the overall bycatch of harbour porpoise in the North Sea".**

4. SUMMARY OF PROGRESS IN IMPLEMENTATION OF THE PLAN

A qualitative summary assessment of the progress realised by the MS in implementing the 12 actions defined in the Conservation Plan, is presented in Table 4.1.

Except for Action 2 and 4, which repeats the situation in 2012, the summary encompasses the period since the adoption of the Plan in 2009, although giving more weight to new activities. As an example, NL receives a '2' for Action 3 for having initiated a large scale long-term monitoring of smaller gillnets with CCTV cameras in December 2012, although they had only done little monitoring of this segment previously.

Table 4.1. Summary of progress in the implementation of Conservation Plan
Except for Actions 2 and 4: 0, no progress; 1, small progress or at experimental level; 2, steady progress; 3, fully implemented; na, not applicable; Rem, remote electronic monitoring.

Table 4.1. Summary of progress in the implementation of Conservation Plan

Except for Actions 2 and 4: 0, no progress; 1, small progress or at experimental level; 2, steady progress; 3, fully implemented; na, not applicable; Rem, remote electronic monitoring.

	Conservation Plan for HP in the North Sea: Actions	Priority		SE	DK	DE	NL	BE	FR	UK
1	Implementation of the CP: co-ordinator and Steering Committee	High		2: Coord part time, task of C and NSSG not completed						
2	Implementation of existing regulations on bycatch of cetaceans - e.g. EC 812/2004 & Habitat Directive (HD) (* Table 1ab, ICES WGBYC 2013 for year 2011)	High	Vessels requiring pingers.	yes?	18	yes?	yes?	1?	90	30?
			% vessels using pingers	?	?	>3	0	0	0	>5
			Enforcement policy	0	?	?	na	na	na	2
			Dedicated observer prog	0	0	0	0	0	yes	yes
			Monitoring under HD	0	0	0	0	0	yes	yes
3	Establishment of BYC observation programmes on small vessel (<15m) and recreational fisheries in NS	High	Professional	0	1	0	2	0	2	2
			Recreational	0	1	na	0	0	1?	na
4	Regular evaluation of *relevant* fisheries, extent of HP BYC	High		0	0	0	0	0	0	0
	Gillnet fisheries =>15 m vessels, dedicated, % DAS observed			0	0	0	0	0	1,4	1,8
	Gillnet fisheries <15 m vessels, dedicated, % DAS observed			0	0,2	0	? Rem	0	0,7	0,3
	Cetacean scheme appended to DCF/DCR schemes			no	yes	yes	yes	no	yes	yes
	DCF observation in 2012 in NS, % DAS observed			0	0.76	0	0	0	na	0.41
5	Review of current pingers, dev. of altern.pingers and gear modif.	High		2	2	2	2	na	1	2
6	Finalise a management procedure approach for determining maximum allowable bycatch limits	High		General progress: SCANS II & WGMME, WKBYC						
				0	0	0	2	0	0	2
7	Monitoring trends in distribution and abundance of HP in NS	High	Large scale	0						
			Reg/survey	0	SACs	3	3	3	1	1
			Reg/Model	0	0	0	0	0	0	1
8	Review of the stock structure of HP in NS	High		1	1	1	0	0	1	1
9	Collection of incidental HP data through stranding networks	Medium		1	**0**	**0**	3	3	1	3
10	Investigation of the health, nutritional status and diet of HP in NS	Medium	(mostly diet in DK, NL, BE	0	2	2	2	2	1	3
11	Investigation of the effects of anthropogenic sounds on HP	Medium		0	2	3	2	2	1	3
12	Collection and archiving of data on anthropogenic activities and development of a GIS	Medium		0	0	1	1	1	0	2

5. SUGGESTION FOR THE REVISION OF CR (EU) 812/2004

The European Commission twice reviewed the implementation of EC Reg. 812/2004 (EC COM (2009) 368[29] and EC COM (2011) 578[30]).

Besides reviewing annually the implementation of Reg. 812/2004, the ICES Working Group on Bycatch of Protected Species also looks at the adequacy of the regulation to address the bycatch problem (ICES SGBYC 2008, 2009, 2010; ICES WGBYC 2011, 2012, 2013, 2014). ICES provided specific advice (2010a, 2013ac, 2014) and held a workshop to specifically Evaluate Aspects of EC Regulation 812/2004 (WKREV812) in 2010 (ICES 2010b). In 2013 an ICES workshop (WKBYC) was held to address three specific requests from the EC regarding monitoring schemes, ways of defining reference points to bycatch and how to best revise the technical specifications and conditions of use of Acoustic Deterrent Devices in light of technical and scientific progress (ICES 2013b). Problems in the implementation of Reg. 812/2004 and its adequacy were also summarised comprehensively by Northridge (2011) and discussed within the ASCOBANS/ECS Cetacean Bycatch Mitigation Workshop[31] (2010) and the ASCOBANS Bycatch Working Group (2014, AC21/Doc.3.1.1.a Rev.1). These fora analysed the problems inherent to the regulation and recommended ways of improving it. Further inputs can be found in several studies, both in terms of optimizing monitoring, assessing the impact of bycatch, defining relevant mitigation measures to be taken and mitigation methods to be employed in relation to specific fisheries segment (e.g., Northridge *et al* 2011, 2012, Dawson *et al* 2013, Kindt-Larsen *et al* 2013, Morizur et al 2014).

In general both the mitigation and the monitoring were judged to be less than optimally directed, with large segment of the fleet, known to present bycatch risk, totally left out of the regulation both in terms of mitigation and monitoring, particularly vessels below <15 m in terms of monitoring and vessels below 12m in term of mitigation measures. In the North Sea, mitigation methods were required in specific net fisheries

The NSSG has not comprehensively analysed and discussed the adequacy of the regulation, but has however made a few specific recommendations, which are tabled in Annex 1.5

It should also be stressed that it is crucial to engage the fishing community in the revision process of Reg. 812/2004, if one wants to facilitate and speed up the implementation of any future regulation regarding marine mammal bycatch. This was little the case when Reg. 812/2004 was drawn. This has previously been pointed out by ASCOBANS (2010) "Parties should try to influence the revision of EC Regulation 812/2004 so that it …; b) allows fishers (and other stakeholders) to participate fully and from the start in the development of the revision." And re-emphasised by Northridge et al (2011) "We conclude by reiterating the importance of engaging the fishing community with this task, and stress that their proactive involvement will be critical if these issues are to be satisfactorily resolved in the longer term".

[29] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0368:FIN:EN:PDF
[30] http://www.ascobans.org/sites/default/files/document/AC19_4-07_EC_Communication_812_2004_1.pdf
[31] http://www.ascobans.org/sites/default/files/document/AC17_4-07_BycatchWorkshop_1.pdf

6. CONCLUSION

As the past and present reviews of the task Implementation of the Conservation Plan show, if there has been progress, it has been far from fully implemented six years after being adopted. In some domains, in particular Action 4, little progress has been made in the NS since the adoption of the Plan, even more so if the scope of the Action instead of covering ***all fisheries*** is restricted to ***relevant fisheries***, i.e., net fisheries. Two countries, UK and France, have dedicated more effort in assessing the impact of bycatch in the North Sea, but even there, monitoring levels are so low that extrapolation is unreliable in many fishery segments. The Netherlands initiated in December 2012 a REM programme, which should produce a more reliable monitoring level in the Dutch gillnet fisheries.

As a result, the conservation status of the harbour porpoise in the North Sea remains unclear, with very patchy information in most domains, not least regarding bycatch.

The North Sea Steering Group should discuss in depth which strategy would be the best for speeding up the implementation process, and maybe more important for getting implemented the Actions which would allow to clarify the conservation status of the harbour porpoise in the North Sea. Without such a clarification, it is difficult to communicate the plan to stakeholders, and in particular those affiliated to the fisheries sector, and therefore to progress the implementation of effective and balanced mitigation measures.

With this background, it is also essential that all efforts be made for ensuring the successful completion of SCANS III, not only as a third synoptic survey of the North Sea in the near future, but also for the assessment of the impact of direct mortality caused by human activities and contributing to the development of a best practice guide for monitoring. Another priority should be a better understanding of the population structure of harbour porpoises in the North Sea.

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ANNEXES

Annex 1 – Action Points and recommendations

Status: Completed, pending, postponed, obsolete, ongoing, replaced, cancelled, repelled…
AP/recommendations in bold are still active, Status in blue requires further actions to be taken
NSC, North Sea Coordinator

Annex 1.1 - Action Points for the NSSG and status of completion

AP 2011	Action	Deadline	Status
AP2011-01	**The chair of the SG will contact Elizabeth Guttenstein (European Commission) about contacts to relevant [*stakeholders*] organisations to participate in the NSSG**		**Pending**
AP2011-02	**The chair of the SG invites the regional advisory council (RAC) secretary to send a representative**		**Pending**
AP2011-03	The chair will contact the secretariat for possibilities for funding industry representatives to attend a SG meeting.		**Completed: AC decide case/case**
AP2011-04	Each country will conduct and submit an inventory on the activities in regard to harbour porpoise conservation in the NS, identifying the key persons involved. Format will be guided by the 12 action points identified in the NSAP (to be submitted to the new NS coordinator with a CC to the SG chair)	Dec 20 2011	Completed
AP2011-05	The chair of the SG will ask the new NS Plan Coordinator to attend the NSRAC meeting in France, Boulogne-sur-Mer, France, October 10-11 2011. The chair of the SG will initiate contact to the NS RAC and announce the attendance and ensure the option for a ca. 15 min presentation to the meeting participants.		Completed
AP2011-06	The new NSAP coordinator will be asked to prepare a paper that highlights the aspects of the Marine Strategy Framework Directive (MSFD) relevant for the NSSG.		Postponed
AP2011-07	NSSG shall give guidance to the coordinator in preparing the paper as mentioned under AP06		Postponed
AP2011-08	The chair will contact the Secretariat on the options to have a SG and AC meeting at a venue that facilitates fisheries' involvement.	**a.s.a.p**	**Ok, NSSG free to suggest venues**
AP2012M-01	All countries to email comments or additions to the draft text for the ASCOBANS 20th Anniversary Volume regarding the NS conservation plan to Geneviève and Martine.	Mar 22 2012, 6 PM	Obsolete
AP2012M-02	All countries to identify the appropriate contact people/persons within the country, check the activity report of the coordinator, and give additions and editions as required, especially with regards to appendices 2, 3, 4 and 5.	30 Apr 2012	Obsolete
AP2012M-03	**All countries to respond promptly to more detailed request for (detailed) information by the coordinator. Countries can respond whether this information can be found in the annual national report or whether additional, more detailed information will be send to the coordinator.**	**As requested by NSC**	**Ongoing**
AP2012M-04	All North Sea countries interested in a printed copy of the Dutch Conservation Plan for harbour porpoises (in English) to send postal details to Sanne van Sluis. A copy	N.a.	Completed

	of the report will then be sent. Also, any details of missing information for the Dutch report, particularly related research, to be sent to Sanne van Sluis and Marije Siemensma.		
AP2012M-05	**All North Sea countries to update the information provided on SACs in the North Sea, including the conservation objectives specific to the species/site and state of implementation.**	**30 Apr 2012**	**Ongoing**
AP2012M-07	Assist GD in completing 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	Next meeting	Completed
AP2012D-02	Comment to GD on rating as listed for each country in the Excel-file on the progress made of the implementation of the conservation plan in the NS	31 Dec 2012	Obsolete
AP2012D-03	Add or comment on the list of main focal points for the implementation of the conservation plan set up by GD	-	
AP2012D-04	Factual changes to the interim report circulated prior to the conference call (e.g. numbers of bycatch) to be send to GD	17 Dec 2012	Obsolete
AP2012D-06	Comments to the updated version of the interim report to be send to GD	11 Jan 2013	Obsolete
AP2013-01	*To include a section on the implementation status of the North Sea Conservation Plan for Harbour Porpoises (NSCP), as well as regionally specific information, when the format for ASCOBANS Annual National Reports will be revised.* **Until that time, the North Sea Steering Group (NSSG) in collaboration with the Secretariat will develop a questionnaire specific to its needs, to be submitted annually by 31 March.**	-	**Ongoing**
AP2013-05	**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.**	-	**Ongoing**

Annex 1.2 - Action Points for the NSC and/or the Secretariat and status of completion

AP	Action	Deadline	Status
AP2012M-06	Prepare a document to investigate whether further coordination and possibly standardising of national monitoring of abundance and trends is feasible between North Sea countries. Summarise progress and options	Next meeting	Completed (Desportes 2013a)
AP2012M-07	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	Next meeting	Completed (Desportes 2013b)
AP2012D-01	Collect information on what type of fisheries is allowed in each country, in connection to bycatch	Next meeting	Completed (Desportes 2013b)
AP2012D-03	Set-up a list of main focal points for the implementation of the CP	-	
AP2012D-05	Update and circulate a next version of the interim report	31 Dec 2012	Completed
AP2013-01	**To include a section on the implementation status of the North Sea Conservation Plan for Harbour Porpoises (NSCP), as well as regionally specific information, when the format for ASCOBANS Annual National Reports will be revised. Until that time, the North Sea Steering Group (NSSG) in collaboration with the Secretariat will develop a questionnaire specific to its needs, to be submitted annually by 31 March**	**-**	**Ongoing**
AP2013-02	**The Secretariat/North Sea Coordinator should provide a page on the ASCOBANS website for the North Sea Conservation Plan, summarizing the plan and the progress in implementation, to promote and explain the Plan to relevant stakeholders (see Task 2 of Action 1 of the NSCP).**	**-**	**Ongoing**
AP2013-03	**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).**		**Pending**

Annex 1, part 3. Recommendations to the NSMS and AC.

	Recommendations	Status
NSSG 2011	0	
NSSG 2012M	To underline the necessity and promote a follow up of the SCANS II project in order to have a good and recent (static) estimate of harbour porpoise abundance and distribution in the NS, and a better idea on trends (based on 3 points 1995, 2005 and 2015?).	Completed
	To promote the synergy between current national monitoring programmes on harbour porpoise distribution and abundance between North Sea countries.	
	To allow for the coordinator of the North Sea plan attending at least one NSRAC meeting per year to get further acquainted with the network and be able promote more in general the North Sea conservation plan.	Completed
	To have the coordinator of the North Sea plan as an observer of all relevant working groups (bycatch and noise) within ASCOBANS to prevent duplication of work and exchange information between the working groups and NS plan.	Completed
	The secretariat is asked to arrange for the coordinator to be included in the mailing list of all relevant working groups within ASCOBANS e.g. bycatch and noise.	Completed
	A similar working relation can be established with the ICES working groups (WGBYC and WGMME).	
	To continue the position of coordinator of the North Sea plan after 2012 to be able to proceed efficiently on activity 8 of Triennium work plan 2010-2012 and activity 9 of the Triennium work plan 2013-2015: "Evaluate progress in the implementation of the Conservation Plan for Harbour Porpoises in the North Sea, establish further implementation priorities, carry out the periodic review of the Plan and promote the implementation of the Plan".	Ongoing
NSSG 2012D	**Monitoring of bycatch of porpoises is needed for smaller (<12 m) vessels as this type of fisheries is important for bycatch and the current trend is an increase of the number of smaller vessels at sea.**	
	Monitoring of bycatch can be conducted using electronic monitoring and/or observers aboard. In order to have this work, it should be mandatory to have a monitoring scheme and video in place.	
	All North Sea countries need to study the fishing effort of recreational fishery in combination with bycatch pressure, as done by France.	
	To enlarge the UK project to assess population trends based on existing monitoring data to get population trends based on current international monitoring. This may be used as a starting point for SCANS-III.	
	To stimulate the coordination of international monitoring and assess where we can do more together	
	To conduct a SCANS-III survey for providing information on trends in abundance of harbour porpoises at a larger scale.	
	To identify areas for special attention for harbour porpoises (e.g. protected areas, areas of concern).	
	To improve the monitoring effort in the northern part of the North Sea (mainly north-western).	
	The NSSG highlights the value of such a North Sea stranding database for harbour porpoises.	
NSSG AP2013-4	**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.	
NSSG AP2013-06	**Small cetacean bycatch mitigation should be enforced in the fisheries that have the highest impact on populations.**	
NSSG AP2013-07	**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.**	
NSSG AP2013-08	**To support by all means the realization and success of a third large SCANS-type survey.**	
NSSG AP2013-09	**To support the on-going development of international collaborative monitoring strategies for Harbour Porpoises in order to meet the surveillance requirements of the Habitats Directive and Marine Strategy Framework Directive, ensuring that the whole North Sea is covered.**	
NSSG AP2013-10	**Consideration should be given to the possibility of further sub-structuring the Harbour Porpoise population in the North Sea. In order to refine population structure, collaborative genetic analysis of existing samples taking into account precise location and date is needed.**	

Annex 1.4 - Recommendations/suggestions from NSSG for amending the CPHPNS

Meetings	Recommendations
NSSG 2011	0
NSSG 2012M	Action 4 should read: Regular evaluation of ***relevant*** [delete *all*] fisheries with respect to the extent of harbour porpoise bycacth
	To evaluate and update the NS Conservation Plan for harbour porpoises for the next triennium (2015)
NSSG 2012D	0
NSSG 2013	0

Annex 1.5 - Recommendation from NSSG regarding amending EU fisheries regulations regarding bycacth.

	Recommendations
NSSG 2011	0
NSSG 2012M	To require monitoring of HP bycacth for smaller vessels (<15m) and recreational fisheries as a part of the reform of the CFP
	To stress the need for EC funding for monitoring population size and necropsy of stranded animals.
NSSG 2012D	Monitoring of bycatch of porpoises is needed for smaller (<12 m) vessels as this type of fisheries is important for bycatch and the current trend is an increase of the number of smaller vessels at sea.
	Monitoring of bycatch can be conducted using electronic monitoring and/or observers aboard. In order to have this work, it should be mandatory to have a monitoring scheme and video in place.
	Monitoring of bycacth is still needed when pinger are applied, e.g. to check efficiency of pingers in mitigating bycatch
NSSG 2013	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.
	Small cetacean bycatch mitigation should be enforced in the fisheries that have the highest impact on populations.
	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.
Interim discussion	Clear definitions of the gear types to which the regulation applies should be developed and included in the regulation. It is currently unclear whether certain types of fishing gear known to interact with cetaceans are covered by the scope of the regulation.
	Vessel lengths for different requirements have varied between 10m, 12m and 15m. This has not been particularly helpful for the overall understanding, implementation and enforcement of the regulations. If possible, some standardization would be helpful.

Annex 2 – Activity report of the coordinator

Coordination of the CPHPNS - Activities carried out in the Period November 2013 to October 2014

Under the present contract running from November 1, 2013 to October 10, 2014, the North Sea coordinator was committed to 54 working days equivalents to ca. 2.5 person-months. Up to 18 days, could be used for pre-approved travel expenses in agreement and accordance with the Secretariat and the ASCOBANS North Sea Group (NSSG). The contacts established and pursued and the actions taken are listed below.

1 Participation in ASCOBANS meetings

- 10th Meeting of the Jastarnia Group in Bonn, Germany, April 1-3, 2014
- 4th Meeting of the NSSG, Gothenburg, Sweden, 28 August 2014
- ASCOBANS AC21, Gothenburg, Sweden, 28 August – 1 October, 2014

2 Participation in external meetings

- Meeting of the ICES Working Group on Protected Species (ICES WGBYC), Copenhagen, Denmark, 4-7 February 2014
- Meeting of the ICES ByCatch Advice Drafting Group (ADGBYC), Copenhagen, Denmark, 13-14 March 2014 (in replacement of the WGBYC chair) "*Assess the extent to which current fishery monitoring schemes, including among other things those conducted under the DCF and Regulation 812/2004, provide an acceptable means of assessing the nature and scale of cetaceans and other protected species bycatch. Consider alternative means and other sources of data that could be used to improve our understanding of the conservation threat posed to cetaceans and protected species by bycatch in European fisheries.*"
- 8th meeting of the Danish Natura 2000 Dialogforum, Copenhagen, Denmark, 17 March 2014

GD did not attend any NSRAC meeting in 2013-14. The still unclear situation in the NS, with a lack of overview on the bycatch pressure and the relative contribution of different fisheries segments, combined to a lack of a solid trend in abundance, would have prevented to deliver clear messages and requests.

3 Contact pursued with

- ASCOBANS Secretariat and the NSSG chairs.
- Delegates and member from the NSSG.
- Scientists and NGOs from NS countries involved with harbour porpoise work, by-catch and population monitoring.
- Scientists involved in the preparation of SCANS III.
- Scientists involved in the ICES WGBYC 2014
- Persons involved in the ICES ByCatch Advice Drafting Group
- AgriFish, the Danish Fishery Agency and Danish researchers involved in porpoise conservation
- Jastarnia group members

4 Actions taken, besides the participation to meetings

- Finalizing the minutes of the 3d meeting of the NSSG
- Continuing collating international and national regulations and guidelines regarding anthropogenic activities, as well as information on their implementation and enforcement in the different NS Sea range states.
- Collating new information on the implementation of the 12 Actions of Conservation Plan in the different North Sea Member States (MS), collated in the annual national progress reports made available to AC20 and AC21, as well as MS annual reports to the European Commission on the implementation of EC Reg. 812/2004.
- Collating new information on bycatch rates in different North Sea fisheries, based on the reports of the ICES SG/WGBYC, in order to produce a more manageable/user friendly North Sea overview of knowledge and gaps in bycatch reporting and monitoring.
- Preparation to the participation in the ICES WGBYC in Copenhagen, February 4-8, 2014.

- Preparation of a presentation of the North Sea Action Plan and the progress in its implementation to be given at the 2014 ICES Working Group on Bycatch of Protected Species, and a summary to be included in the report of the WG (ICES WGBYC 2014, point 9.4.2)
- Contributing in finalizing the report of the ICES WGBYC 2014, in the absence of the Chair
- Contributing in finalizing the Advice prepared by ICES ByCatch Advice Drafting Group (ADGBYC)
- Preparation to the participation to the 10th Meeting of the Jastarnia Group in Bonn, Germany, April 1-3, 2014.
- Working on developing a questionnaire specific to the needs of the NSSG for reporting to ASCOBANS
- Working in collecting data for characterising and qualifying the fishing effort with static gears in the North Sea for the different North Sea countries.
- Preparing material to be included on the ASCOBANS website on the North Sea Conservation Plan and the progress in implementation in the different countries
- Preparing the 6th interim report on the implementation of the Conservation Plan in view of the 4th meeting of the NSSG on August 28 in Gothenburg, Sweden.
- Preparation of the agenda for the 4th meeting of the NSSG, in collaboration with the new chair of the NSSG, P. Evans.
- Preparing a presentation to be given at the AC21 meeting, NSSG on August 29-September 1, in Gothenburg, Sweden.