

Agenda Item 4.2

Priorities in the Implementation of the
Triennium Work Plan (2010-2012)
ASCOBANS Conservation Plan for
Harbour Porpoises in the North Sea

Document 4-05

Report of the North Sea Coordinator

Action Requested

- Take note
- Comment
- Provide guidance

Submitted by

Secretariat



NOTE:
IN THE INTERESTS OF ECONOMY, DELEGATES ARE KINDLY REMINDED TO BRING THEIR
OWN COPIES OF DOCUMENTS TO THE MEETING

INTERIM REPORT ON THE IMPLEMENTATION OF THE S.O. NS NORTH SEA CONSERVATION PLAN FOR OUR PURPOSES

Geneviève esportes

Mars 2012

Contact email: ns-hp-ascobans-cp@gdnatur.dk

Introduction Scope of work

The agreement on the conservation of small cetaceans of the Baltic, North East Atlantic, Irish and North Seas (S.O. NS) adopted a new conservation plan for the Harbour Porpoise in the North Sea on 18th September 2009 at its sixth Meeting of Parties in Bonn, Germany (S.O. NS, 2009). The Plan aims to restore and/or maintain 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 Plan identifies bycatch as the main threat and has articulated around 12 specific prioritized actions built upon three general considerations:

- Major information gaps need to be filled for fully assessing the situation and being able to recommend effective and adequate conservation measures, this both with respect of the harbour porpoise itself (feeding ecology, behaviour around nets) and the human activities it is subject to and their actual/potential impact.
- Monitoring is essential for informing trends in the conservation status (i.e. in the species, the threats, the implementation and efficiency of the mitigation measures) and informing the effectiveness of the management actions, and if necessary adjust them, to achieve the established conservation aims.
- The Plan needs to be reviewed periodically to adjust the actions based on the information provided by the monitoring.

For the conservation Plan to be effectively implemented it needs a larger Steering Committee, supported by a coordinator.

Two interim coordinators were contacted in 2009. Their initial work concentrated entirely on issues related to bycatch and is reported in an interim report to 200917 (2017_4-05) and a final report to 200918 (2018_4-06). The report to 200917 covered issues related to (1) documenting relevant regulations and guidelines and review reports on implementation, (2) Promoting and explaining the plan to stakeholders, (3) Practical implementation of the plan (Monitoring and mitigating bycatch from small vessels), and (4) data collection and fishing effort. The report to 200918 provided an update on new information relevant to the Plan, including a meeting of the North Sea Regional Advisory Council.

The present work should build upon this initial information and was to be carried out in close consultation with and seek guidance from the S.O. NS North Sea Working Group. The tasks outlined for the coordinator and the SG in function of the conservation Plan include:

Appendix 2 and collates the information received identifying the key persons involved in the conservation of harbour porpoises in the North Sea and the relevant fishery organizations operating small boats and inshore fisheries.

2. Document and collate existing international and national regulations and guidelines (Coordinator Task 1)

2.1 International Regulation and Guidelines

Appendix 2 presents an initial (and not comprehensive) collation of international conventions and regulations impacting the conservation of the harbour porpoise in the North Sea.

As reported by Leaper & Papastavrou (2010), the most general requirement relating to harbour porpoise bycatch for EU countries comes from the **Habitats Directive** (92/43/EEC) on the conservation of natural habitats and of wild fauna and flora, where harbour porpoise is listed in Annex II and Annex IV. More specific measures are specified in **RR (EU) 12/2004** concerning incidental catches of cetaceans in fisheries, their monitoring and their mitigation using acoustic deterrent devices (pingers) for specific fisheries. This compulsory monitoring is extended by the requirement of collecting fisheries data under **RR (EU) No 199/2008**, which does not have qualification based on vessel size.

Not much new in terms of legislation has come since the coordinator's reports in September 2010 and May 2011 (Leaper & Papastavrou, 2010, 2011).

The most relevant processes are the review of the **Common Fisheries Policy**, **FP (COM (2011) 417)** and the review of the **RR Regulation 12/2004** (COM (2011) 18, 2011-4-07), and how by-catch mitigation will be adapted in the future and integrated in the **FP** framework.

There is widespread agreement on the critiques to the **FP** and fishing impacts on the marine ecosystem. Aspirations for a better protection of marine ecosystems are now formally set out in the **Marine Strategy Framework Directive**, **MSFD**, and are underway through the reform of the **FP** (COM, 2011:425).

In the framework of the reform of the **FP**, amending 12/2004 was not an option (see **oc 2011_7-01**, the report of the European Parliament Workshop "Protecting Cetaceans in the EU: Bridging the Gap between Research, Policy and Implementation"). The Commission would focus on an integrated approach linked to local conditions striving towards (1) the introduction of the monitoring of cetacean bycatch into the data collection framework (2) the harmonization of the **FP** with the **Habitats Directive** and the **MSFD** and (3) the inclusion of bycatch mitigation measures into the technical measures framework that will be developed as part of the reform of the **Common Fisheries Policy**. The plan therefore follows the spirit under the reform of the **FP** (COM (2011) 417), with better governance through regionalisation and more flexibility for Member States to adapt to particular local circumstances.

The **Habitats Directive** (HD), which represents the most general requirement relating to harbour porpoise bycatch for EU countries, has received a lot of attention in recent years due to the requirement to designate protected areas so called **Special Areas of Conservation**, or **SACs** (e.g. most recently **Ivans 2008**, **Markset 2010**, **gardy et al 2011**, **Hooker et al 2011**, **Proelss et al 2011**). In 2007, the European Commission published **Guidelines for the specific establishment of SACs in coastal and maritime regions**¹. It is indicated in 2011_4-03, the porpoises must be protected within these areas and management plans must be developed. The management plans must ensure that the abundance of

¹ Guidelines for the establishment of the Natura 2000 network in the marine environment. Application of the Habitats and Birds Directives.

porpoises within each of the stable or increasing and that the total abundance of harbour porpoises within national borders should not decline. It is essential that clear measurable objectives in both the regional monitoring of the species and in the monitoring of the entire population be defined for allowing quantitative evaluation of the success of the management plans. The monitoring methods should be kept consistent to reduce method-related variation and increase power in trend analysis.

The harbour porpoise is also included in the monitoring programmes of the **EU MSF (2008/56/EC)**. Key milestones of the MSF, to which EU Member States must comply in trying to achieve **Good Environmental Status** in their marine environment by 2020, is coming up in **2012**: the assessment of current ecological status and definition of GES and corresponding indicators. It will be followed by the establishment and implementation of monitoring programmes (by 2014), the development and implementation of corrective measures (by 2016) and finally the achievement of GES (by 2020).

From 1 January 2012, an interesting aspect of **EU No. 1224/2009** has come into force, where fishing boats with a length of between 12 and 15 m in all EU Member States are required to install a satellite-based vessel monitoring system (VMS) which at regular intervals provides data to the fisheries authorities on the position, course and speed of vessels. Prior to January 2012 this obligation was only compulsory for vessels > 15 m since 2005. This new regulation may provide better geographical overview and data on fishing effort. For gillnets, however, where most of the bycatch occurs, the VMS system will only indicate where the boats fish but will not provide indication about gear type and effort.

From 1 May 2012, following the **EU Directive 2009/17/EC** larger fishing vessels (24-45m) are being required to use **IS (Automatic Identification System)** (see Leaper & Papastavrou, 2010 (2017_4-05), for more detail on IS and their benefit to better knowledge on fishing effort and activity).

2.2 National Regulation and Guidelines

Appendix C presents an initial collation of national regulations impacting the conservation of the harbour porpoise in the North Sea.

Three important recent events are the German New Federal Nature Conservation Act from 2010, the French Order from July 1, 2011, and the release of the Dutch Conservation Plan for the harbour porpoise in date of fall 2011.

In Germany, territorial waters lies under the responsibility of the coastal Länder, while EEZ lies under the responsibility of the federal Government, giving a two-level policy implementation. The German New federal Nature Conservation Act establishes that Nature Conservation becomes the responsibility of the Federation, following the federalism reform. Several key objectives are being achieved (Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, 2010):

- “The Federation has created comprehensive regulatory provisions – not merely framework legislation as before – which are directly applicable to all citizens
- In areas where the need for nationally applicable legislation has been identified, some areas of nature conservation law that were previously regulated at the Land level have been incorporated in federal law.
- Transposition of European directives no longer takes place in two stages at federal and Land level, but is now carried out via the adoption of uniform, nationally applicable legislation.
- Nature conservation law has been harmonized and simplified with a view to making it easier to understand and apply.
- General principles of nature conservation are now explicitly identified in law and cannot be amended by the Länder. No derogation is permitted.”

The new act therefore strengthens marine nature conservation as a whole, devoting an entire chapter to it for the first time. Object of the monitoring are explicitly identified (incl. obligations arising from the HD). The new act applies to the Territorial Waters, but also in its entirety to the EEZ as well.

□

The French Order, repealing the order from 27 July 1995, establishes the species list of marine mammals protected on the entire French territory and the clauses of their protection, among them the harbour porpoise. Its relevant points, Art. 2 stipulates the interdiction of destruction, alteration and degradation of reproductive sites and resting areas and Art. 4 rendered obligatory the reporting of all by-catch of cetaceans and pinnipeds by 1 January 2012. This latter is especially noticeable, as it may contribute to a better knowledge of the level of by-catch in the French fisheries and in particular in fisheries not obliged to report under the Regulation 12/2004. Of course, it may be difficult the enforcement of the order is still based on voluntary reporting and will be difficult to control, unless some special measures are developed.

□

The Dutch Conservation Plan for the harbour porpoise (Amphuysen & Siemensma, 2011) aims at “keeping or bringing the species in a favourable conservation status”. It represents a considerable work and is both an action plan proposing concrete measures and a background document reviewing of the present understanding on the seasonality of migratory movements of porpoises through the North Sea, particularly within waters under Dutch jurisdiction”. It is a comprehensive stakeholder consultation has been part of the project, leading to a general commitment by stakeholders and NGOs to the proposed research and mitigation measures, which is an important factor for ensuring the actual implementation of the plan.

□

The Plan reviews current knowledge on the species and the threats it faces in Dutch waters, the existing mitigation measures, it identifies gaps and provides the policy and legislative context. Then it proposes some concrete measures, both regarding current prioritized research needs for dealing with the inadequate data for assessing the scale of potential threats and policy and mitigation. The authors propose the creation of a national scientific research steering committee for evaluating the progress accomplished in terms of research. Given the changes in distribution and abundance observed in the Southern North Sea in the recent decades, the authors underline that the conservation status of porpoises in Dutch water, and consequently the action plan, will need to be reviewed and updated in the near future.

□

The Dutch Plan constitutes a very in-depth update of the background knowledge, which forms the background of the NSRP, and was based on a review from 2006 (Pisfeld & Kock, 2006).

3. Promote and explain the Conservation Plan to relevant stakeholders (Task 2)

□

As identified in the Plan, the stakeholders includes several different groups, statutory government agencies, commercial fishermen and their industry bodies, recreational fishermen, environment and animal welfare non-governmental organisations (NGOs), as well as key regional organisations and bodies. There will be difference in the way they should be addressed, also between different countries. As pointed by Leaper & Papastavrou (2010, 2011), it is also necessary to come in contact with the more coastal fisheries, usually using smaller vessels to which the Regulation 12/2004 do not apply, which tend to have less organized representation than larger offshore fisheries.

□

3.1 Cooperation with the North Sea Regional Advisory Council (NSRAC)

Recommendation was made to pursue the contact established with the NSRAC, which aims to provide greater stakeholder involvement in fisheries management at the regional level. It participated in the NSR

Executive Committee, October 2011, Boulogne-sur-mer, France. Full report can be found under 19_7-01. No formal presentation was given on the P was given but informal contacts were taken.

In the framework of its discussion on the FP reform and in particular the proposed discard ban, the NSR stated that it would be impossible to implement such ban, although discard could and should be reduced. The NSR emphasized the need for a fishery-by-fishery approach to reducing discards. It underlined that the first step was to fully document catches and then to work towards an improvement of the selectivity, so discards would not be a problem any longer.

There was no longer discussion on the Dogger Bank, and the proposed Dogger Bank (see Figure 2). It was again underlined that at the moment the Dogger Bank is under different management regimes which are not consistent, which was problematic. Dutch, German, UK and Danish fleets, and to a lesser extent vessels from Belgium, France, and Norway, operate freely across the boundaries of the emerging Dogger Bank Natura 2000 complex, comprised of adjoining Special Areas of Conservation designations. In its Position paper on fisheries management in relation to nature conservation for the combined area of national Natura 2000 sites (SAs) on the Dogger Bank² the NSR underlines a major and long-standing concern for the need to arrive at common fisheries management measures for the complex to ensure coherent and harmonised management regime for mobile fishing gears which meets the conservation objectives of the sites. From the outset, the NSR recognised that serious risks arose from the unilateral approach being taken by the three Member States to their respective parts of the Dogger Bank, notably in respect of the qualifying features they each recognised, the resulting conservation objectives and the ultimate fisheries management measures required to meet these. In regard to each of these elements, the different Member States have also progressed to different national timelines, adding to the difficulty of achieving a joined up approach. The NSR challenged the Member States to adopt, and the Commission to promote, a much-needed cooperative approach”.

Under point 2. Dogger Bank Natura 2000 conservation objectives / Marine mammals (Harbour Porpoise and Seals) Harbours Porpoise and Seals are considered in the German plan by setting conservation objectives for maintenance of *inter alia* the existing stock and the ecological quality of their feeding. The Netherlands and UK plans take a different approach, invoking the need for a North Sea-wide Harbour Porpoise Protection Plan to protect these species along with Seals.”

The position paper identifies the elements necessary for zoning proposal, with no-take zones, areas for low-impact fishing gears and fishing effort caps in the remainder of the area, with possibility opened for other options. However, the approach is intended to be gradual and adaptive learning by doing.

Catch of birds or marine mammals was not subject this year. It was very clear during the whole meeting, that the NSR was very positively sensitive to any sign of bottom-up and cooperative approaches.

Informal discussions

Informal discussions with representatives from different countries (in particular Denmark, France, Belgium and Holland) informed that the NSR is aware of the issue of porpoise bycatch, but the general feeling is that:

- With the general reduction in fishing effort in the North Sea using static gear, the problem is not as serious as it was.

²<http://www.nsrac.org/wp-content/uploads/2011/03/2011-10-10-11-Dom-Paper-7-Dogger-Bank-report-FIN2L.pdf>

- Smaller inshore vessels, which represent the majority of the fleet in most countries, were the main cause of by-catch rather than the larger offshore vessels, practicing little gill-netting, which the RPO was primarily concerned with.

□

The NSRPO was willing to do what was in its power for decreasing the by-catch of cetacean, but also made clear that the situation like in the Baltic was not acceptable, where few by-catches of non-existent species led to the closure of "métier". As far as technically practicable, gear modifications should aim at simultaneously mitigating by-catch of small cetaceans and other non-target species, such as birds.

□

It was strongly suggested that SPO NS made an effort at national levels for dealing with by-catch by smaller inshore vessels including those under the "much less regulated and often not best practice", recreational and semi-professional fisheries. It was clear that dealing with this would develop good wills.

□

Suggestions for establishing/pursuing cooperation with the NSRPO

As already mentioned, it is possible for SPO NS to give a presentation at ExCom meeting. Such a presentation would need to be arranged with the chair and the secretariat of the NSRPO well in advance. Considering the form and usual content of the meetings, it certainly needs to deliver a very clear and concise message or very clear information or requests, which should be relevant to the fisheries represented. The best way would likely be to also send a written short background document in advance of the meeting.

□

This presentation could sum up the present by-catch situation in the North Sea, replace it in a sustainability context, present the necessary management steps to be taken to ensure the conservation of the harbour porpoise and open a discussion on a possible mitigation process. The aim of such a discussion should be a single clear message that the representatives can then easily relay to the fishers involved. The problem with this approach is that the situation in the North Sea is very unclear and that it is difficult at the moment to present hard facts on the present level of by-catch, while the NSRPO has the feeling that the situation has considerably improved.

□

A psychological prerequisite to a fruitful cooperation with the NSRPO is, however, that SPO NS also engage in an equivalent effort targeting inshore fisheries.

□

Another way forward could be first to cooperate on the Hoggerbank Natura 2000 management plan and offer a coordinated approach regarding marine mammals. Such an approach would well fall within the scope of the NSSG and SPO NS as a large.

□

3.2 Contact to the coastal fisheries through locally implanted projects

Appendix B collates the information forwarded so far by the CG members on local fisheries organizations dealing with inshore fisheries. However, these tend to have less organized representation than larger vessels.

□

Another way of getting in contact with these fisheries, also semi-professional and inshore fisheries, could be to cooperate with already locally implanted research or management oriented projects. Example of such projects can be the French project NPM (although at the border of the interest area) looking at the interactions between fisheries and marine mammals in the Groise Sea. The project is a cooperation between fishermen, the Groise Sea MPA, the University of Brest, the National Natural History Museum and Oceanopolis to work on the by-catch and the depredation in the Groise Sea.

□

The French project Filmanet³ (Fileyeurs Manche Étacés) from 2008-2010 was coordinated by the French National Fishery Committee, in cooperation with several research organisms (IFREMER, IFRMM, SINZY, DDTMM). Information material has been produced and the experience gained during this project should be used.

□

The project initiated in 2010 in the Netherlands by the Coastal and Marine Union (U22) and aiming at mitigating harbour porpoise bycatch in Dutch large mesh size trammel- and gillnet fisheries (2018_2-07), could be a good candidate. The project is in close collaboration with the U22, the Dutch Fisheries Organisation (Nederlandse Visserbond), the expert group on setnet fisheries and a group of winter setnet fishers. Participating fishers received a permit to land and bycaught porpoises.

□

“The Coastal & Marine Union (U22) is an association founded in 1989 with the aim of promoting coastal conservation by bridging the gap between scientists, environmentalists, site managers, planners and policymakers. It has grown since then into the largest network of coastal practitioners and experts in Europe, with 15 national branches and offices in seven countries.”

□

The new Danish initiative should also be followed up, where pinger are temporary made obligatory in the Great Belt area on all gillnetters regardless of size and fishery segment, i.e., also including semi-professional and recreational fisheries. The Danish GriFish agency⁴⁵ will organise, in parallel with the establishment of a task group, consisting of representatives of the responsible authorities and relevant research institutions and aiming at ensuring the conservation of harbour porpoises in Danish waters, the establishment of a “dialog forum”, where the Green NGOs and the fishermen will be participating.

□

The SOSO22NS bycatch Working Group (2018_4-07), which has in its ToRs “To develop a guidance framework for co-operative projects that bring together fishers, gear technologists and cetacean scientists for by-catch mitigation” also reports on different case studies, especially regarding contact with small coastal fisheries.

□

Several interesting suggestions are also given by the Report of the Joint NM20/IO22S Workshop on observation schemes for bycatch of mammals and birds (WKOS20M2010) under point 7.2 *Reconciling Industry and Scientific Views of by-catch estimates*.

□

3.3 Explaining the Plan to Key Stakeholders.

Besides the active approach of seeking out key stakeholders in each country, a passive approach of publicising the plan and its key components to invite engagement by stakeholders should be developed. Adequate information material needs to be created, which should try to describe “simply” the NS2 situation, focusing on the type of stakeholders being targeted.

□

If this material shall be effective, it must clearly include hard facts on the present extent of bycatch in the North Sea, otherwise it will be hard to argue against the feeling of some of the stakeholders, that the situation has improved a lot and is not critical anymore. Ideally, it must also include information which allows an individual fisherman to relate his own limited bycatch to the general problematic. This has typically been a problem in the Baltic, but is also a problem elsewhere, as illustrated by the comment to a local newspaper of a Danish fisherman from Fyn on the recent obligation of using these controversial

³ <http://www.comite-peches.fr/site/index.php?page=g32&prog=29> and

<http://wwz.ifremer.fr/defimanche/content/download/44375/627984/file/Synth%208se%20des%20r%203%209sultats%20FILM20N22T.pdf>

⁴ The new agency under the Ministry of Food, Agriculture and Fisheries

⁵ <http://www.fvm.dk/nyhedsvinsing.aspx?ID=18341&PID=395624&year=2012&NewsID=6961> [in Danish]

pingers" (*dixit*) for all professional and recreational fishermen in the inner Danish waters. "I have only caught two porpoises in three years and know from other semi-professional and professional fishermen, both large and small boat-owners, as it is the same they observe." (Fyens Stiftstidende, 07-03-12, debat).

4. Progress report on the implementation of the P (task 7)

Under task 7 of the NSG 2011 activity calendar each country should conduct and submit to the NSG coordinator an inventory on the activities in regard to harbour porpoise conservation in the North Sea. The 12 action points as identified in the S2007 NSG conservation Plan for harbour porpoises will serve as the format for the inventory. These briefly involve:

1. Implementation of the conservation Plan: co-ordinator and steering committee;
2. Implementation of existing regulations on bycatch of cetaceans;
3. Establishment of bycatch observation programmes on small vessel (<15m) and recreational;
4. Regular evaluation of all fisheries with respect to extent of harbour porpoise bycatch;
5. Review of current pingers, development of alternative pingers and gear modifications;
6. Finalise a management procedure approach for determining maximum allowable bycatch limits in the region;
7. Monitoring trends in distribution and abundance of harbour porpoises in the region;
8. Review of the stock structure of harbour porpoises in the region;
9. Collection of incidental porpoise catch data through stranding networks;
10. Investigation of the health, nutritional status and diet of harbour porpoises in the region;
11. Investigation of the effects of anthropogenic sounds on harbour porpoises;
12. Collection and archiving of data on anthropogenic activities and development of a GIS.

Appendix collates the received national inventory on activities in regard to harbour porpoise conservation in the NSG under each of these points.

The following points will review the most important findings or conclusions since the two first coordinators reports, focusing on action point 1-7 and 9.

4.1 Implementation of the conservation Plan: co-ordinator and steering committee (P Action 1)

See under point 1.

4.2 Implementation of existing regulations on bycatch of cetaceans (P Action 2)

A detailed review of the implementation of RR (2004) 12/2004, and its pertinence to the bycatch problem, is done annually by the SSWG (S2SG Y2009, S2SWG Y2010, 2011, 2012-draft), and has been reviewed by the S2 (2010abc, 2011b) and twice by the EU Commission (COM (2009) 688 and COM (2011) 518). It is comprehensively summarised by Northridge (2011) and also discussed in 19_4-06.

The common conclusion is that there are both gaps and inadequacy in the regulation, patchiness in its implementation and problems in meeting the reporting requirement of the regulation. The regulation has been in place for 6 years, and despite these improvements it is still not fully meeting its objective of preventing the accidental capture of cetaceans in fishing gears, and in particular of harbour porpoises in the North Sea. Its absence of compliance to the reporting obligation combined to reporting of fishing effort in format which do not allowed extrapolation to the fleet is still at present in a very patchy overview of the bycatch level in most fisheries. Also the regulation does not cover all areas. E.g. it does not stipulate monitoring schemes in bottom set gillnet fisheries for the North Sea and the English Channel.

2

Although appropriate scientific studies or pilot projects to collect data on incidental catches for boats under 15m should be implemented under the Regulation 12/2004, the knowledge about the level of by-catch in smaller vessel fisheries, and coastal fisheries, is very scarce, although the European fishing fleet is in majority constituted by vessel under 12m. For the North Sea Range states this proportion ranges from 79 to 97% (Northridge, 2011).

2

The same implementation problems are encountered with the H, where there is a problem with compliance, control and enforcement after implementation into national legislation. The harbour porpoise is listed in Annex II and Annex IV. Under article 12(4) Member States shall establish a system to monitor the incidental capture and killing of the animal species listed in Annex IV. 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 negative impact on the species concerned. The H concerns both Z and W, and member States are under this directive obliged since 1992 to establish a system to monitor incidental capture and killing of all European protected species, hereunder the harbour porpoise, and obliged to take measures to ensure that incidental capture and killing does not have a negative impact on the species.

2

In its report from 2011, the 2009 SWG Y2 maintains that bycatch monitoring for under-15m vessels is a requirement of the Habitats Directive. WG Y2 emphasizes that bycatch is responsive to gear and not to vessel length. WG Y2 therefore recommends that a full picture of bycatch (and therefore of impact) is required, Member States/countries need to ensure bycatch caused by boats less than 15m is also monitored, and if necessary, mitigated as mandated by the Habitats Directive (2009 SWG Y2 11b)

2

Collection of fisheries data to evaluate the environmental impact that may be caused by fisheries on the marine ecosystem is also required under Council Regulation (EC) No 199/2008 concerning the establishment of a Community framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the Common Fisheries Policy.

2

Although some projects have been started for monitoring bycatch in small vessel fisheries (see below), the patchiness in or the lack of implementation of the existing regulations, render the gap of knowledge in this area the most crucial problems for the conservation of the harbour porpoise, everywhere and in particular in the North Sea.

2

4.3 Establishment of bycatch observation programmes on small vessel (<15m) and recreational (PP action 3)

The establishment of bycatch observation programmes on small vessel (<15m) is a project-based, as it is not an obligation under the Regulation 12/2004. It is annually reviewed by the 2009 SWG Y2 2009, 2010 SWG Y2 2010, 2011, 2012-draft). Mitigation measures alternative to onboard observers, their advantages and problems, have also been reviewed by the Joint NMMO/IO SWG Workshop on observation schemes for bycatch of mammals and birds (WKOSOM 2010). Observation programmes on small vessels mostly remains at an experimental level, but some of the results obtained so far are very promising and deserve an immediate larger implementation.

2

Onboard observers

France Observers have been placed on vessels less than 15m but not under 8m during the project Filmanet running from 2008 to 2010 in the channel and South North Sea. See further detailed under point 3.2.4 (appendix 6, Action point 3).

Remote electronic monitoring (using CCTV cameras)

Denmark The study started in 2008 (Kindt-Larsen & Malskov 2010, Kindt-Larsen et al. 2011). From May 2010 to May 2011 six 10-15 m long Danish commercial gillnetters fished with electronic monitoring (EM) systems. The vessels operated in the Baltic and the North Sea. During 3 months of monitoring, 152 bycatches of porpoises were observed, of which 11 specimens by one vessel operating in Vband IIa N. The main aim was to test whether a shift from a landing quota system to a catch quota system where all catches are counted against the vessels' catch quotas will work on small vessels. Secondary aims were to determine if EM can be used to reliably document bycatch of marine mammals and birds, and to determine the best practice for analysing the video footage with respect to marine mammal bycatch. The conclusions of the study were that there were no particular problems related to using the EM system on such small vessels, that marine mammal bycatch could be reliably recorded and that the EM system provided a better approximation to the total bycatch than fishermen's records and better than normal FF observers. Four different methods for analysing the videos were tested but more work was needed to determine the best practice (Lotte Kindt-Larsen, pers. comm. as well as IPES 2012-draft).

Holland In the Netherlands a trial with one small gillnet vessel (<10m) was carried out in 2011, with a primary objective to collect discard data under the data collection framework (DF). Preliminary results revealed several bycatches of harbour porpoises. The sample size was too small to extrapolate to the Dutch fleet. However, this result clearly shows that bycatch of harbour porpoises does occur in subarea Vc by vessels smaller than 15m. (Marije Siemensma, pers. comm., IPES/WG Y 2012-draft).

IPES/WG Y (2011, 2012-draft) agreed that "electronic monitoring appears to be a very cost-effective and reliable way to determine bycatch rates of protected species provided fishermen can be persuaded to adopt the system". The main advantages include full coverage of all net hauls, control of use of pinger although not their functionality, price compared to onboard observer, reliability, rapid technological improvement in hardware and software. European Parliament (2010) notes that remote monitoring using CCTV is well suited to monitoring rare events such as cetacean bycatch and should be considered in the future.

Other monitoring

Norway This is reported by the Pycath WG, which has a task order to report results of scientific studies on bycatch. In summary, two gillnetters in each of the two Norwegian coastal sectors (area IIa, IVa and IIa) were selected and contracted for providing detailed data on effort and catch of all species including marine mammals and birds. The model developed for predicting bycatch for the whole coastal gillnet fleet targeting cod and anglerfish gave annual bycatches of 16,900 harbour porpoises (Jørgen and et al. 2011, pp 19_4-06).

The Norwegian study, endorsed by the EW Scientific Committee in 2011, was successful in monitoring bycatch in commercial vessels of less than 15m length without the need to take independent observers on board. It revealed a high level of bycatch in this smaller vessel fishery giving rise to concerns. It underlines strongly the need for monitoring the smaller vessel segment of the fleet, inclusive the recreational and semi-professional segments, over the whole NS region, if one wants to get a reliable overview of the bycatch problematic.

France Interviews in the population has been carried out in an attempt for identifying and qualifying the fishing pressure of recreational fisheries. Analysis must identify whether the length of the nets used can be estimated from these interviews. This represents the only reported attempt of monitoring recreational fisheries in the NS range states (appendix 5, section 3).

4.4 Regular evaluation of all fisheries with respect to extent of bycatch (PA action 4)

IPSS 2012 will provide a summary of all bycatch estimates collated under 812/2004 from the WGWY database from 2004 to 2010 by netier level (3), country and fishing areas.

□

Table 1 presents an update of table 4 from the NSP conservation plan with the available harbour porpoise bycatch information, taken from various sources, and mostly emanating from monitoring under 812/2004.

□

The comparison of the older data supporting the NSP action plan (latest data from 2007) and the present situation were most telling. They are filled with annual bycatch and interpreted in two contradictory ways: 1) The table reports a true overall picture of the bycatch in the North Sea and the pressure is much reduced compared with the situation in the period approx. 2000-2005. Bycatch is high in the Norwegian part of the North Sea, but there are no numbers to compare them with.

2) The table does not report the true picture of the overall bycatch situation. The monitoring schemes are mostly reporting zero-bycatch in recent years, except in some UK segments, but this is not an indication that by-catch is not occurring, simply because the wrong section of the fleet are monitored.

□

Summing up, the situation in the North Sea remains at present very unclear. There is a total lack of information for several fisheries susceptible or believed to have a high level of by-catch. A good example of these is given by the Norwegian study reporting high level of by-catch in smaller vessels fisheries, when this segment is precisely very little documented elsewhere. Haelters and Amphuysen (2009) report substantial bycatch observed along the coasts of Belgium and the Netherlands. There has been an increasing rate of strandings in the Netherlands in recent years, and among them high rates diagnosed as by-caught as illustrated under point 4.9 (See also Amphuysen & Siemensma 2011 for a review).

□

IPSS WGWY (2011) noted that "at present EU Member States largely re-strict any sampling to that specified in Regulation 812, although other fleet segments may be more appropriate to monitoring. Some fleets are therefore probably being monitored too much and others too little. Specifically, for example, not enough monitoring of set-net fisheries in VCs is currently being undertaken as this is not mandated under Regulation 812".

□

IPSS WGWY (2011) continued proposing to tackle the bycatch issue in a different way, repeating its recommendation that "bycatch monitoring schemes should have more flexible targets not necessarily with the aim of providing total bycatch estimates with predetermined TVs, but should rather aim to ascertain whether or not bycatch rates in specific fisheries are likely to represent a conservation problem" (IPSS 2011b).

□

Northridge (2011) also concludes that "it is clear that these totals provide only a very patchy overview of total cetacean bycatches in Europe for several reasons: firstly, for several fisheries even where bycatches have been observed, data have been deemed too patchy or unrepresentative to provide a reliable bycatch estimate; secondly because only a minority of fisheries has been sampled, and thirdly because most of the attention is being devoted to over 15m vessels that form a minority of the fleet, for gillnets at least. It is also worth noting that several member states either do not currently have bycatch monitoring schemes at all (i.e. are ignoring the regulation), or include protected species bycatch monitoring under other monitoring activities (fish discard or biology schemes) which may compromise their efficiency."

□

2

Table 1. Summary of recent bycatch information for harbour porpoises from Table 2 in the P.

Original part: Legend unchanged

Updated part: Approximate figures extrapolated from graph and both are included in the number given in the estimate. Numbers in brackets refer to

2

Greater Region	ICES area	Country	Main gear type	Target species	Size of fisheries	Estim. method	Year	Estimated annual bycatch	Year	Reported estimated annual bycatch	Sources	
Norwegian coastal waters	IIa, IVa, IIIa	NO	bottom-set gillnets coastal fisheries vessel <15m	Angler fish, cod, mixed fisheries	7000 vessels	18 contracted vessels			2006-2008	6900	Bjørge et al. 2011	
			bottom-set gillnets coastal fisheries vessel <15m	Angler fish, cod, mixed fisheries		4 contracted vessels	2006	Not yet available	2006-2008	750**	Bjørge et al. 2011	
Norwegian Skagerrak	IIIa		bottom-set gillnets coastal fisheries vessel <15m	Angler fish, cod, mixed fisheries		2 contracted vessels	2006	Not yet available	2006-2008	300**	Bjørge et al. 2011	
Kat./IDW/ German Baltic	IIIa	SE	bottom trawls					80				
			pelagic trawls trammel nets gillnets	herring lumpfish sole, cod, crab		fishers interviews	2001	11 8 70		2009	No programme	ICES (2011b)
Skagerrak	IIIa	DK	gillnets, trammel nets, pelagic trawls	cod		fishers interviews	2001	20 25	2009	No programme	ICES (2011b)	
			bottom trawls all gillnets						2009	0	ICES (2011b)	
North sea	IV	UK	set nets	cod, skate, turbot, sole, monkfish, dogfish			1995 - 2002	439 [371-640]				
			pelagic trawl	herring, mackerel		observer program	1987 - 2002	5,817/ 5,591*		2005-2009	0	Northridge & Kingston (2010)
			wreck nets, gillnets	cod, hake, turbot, plaice, sole	very large							
Central &	IVb	DK	all gillnets						2009	2 hp	ICES (2011b)	

Greater Region	ICES area	Country	Main gear type	Target species	Size of fisheries	Estim. method	Year	Estimated annual bycatch	Year	Reported estimated annual bycatch	Sources
Southern North Sea	IV b	D	gillnets	cod, turbot, sole, other demersal fish	small	observer program	2002 - 2003	25-30		Tot rep. No programme	ICES (2011b)
	IVc	BE	gillnets gill + trammel nets	sole, plaice, cod		Strandings	2003-2007	90 Tot rep.	2009	0	ICES (2011b)
	IVc	NL	gillnets	unknown	unknown	Strandings	2003 & 2004	100			
Celtic Shelf (incl. Channel)	VId	NL	OTM, PTM						2009	0	ICES (2011b)
	VII e, f	UK	gillnets	hake			August 1992 – March 1994	740 [383-1097]		791 (cv=0.31) Vildefgh	ICES (2011b) Northridge & Kingston (2010)
			tangle nets wreck nets gill + tangle nets	hake and other white fish	medium	Observer program	2005 / 2006	453 / 728		0	AC18/Doc.2-04 to ASCOBANS
	VII e, h	FR	PTM						2009	0	AC18/Doc.2-04 to ASCOBANS
North Sea	VII	UK	all						2008 2009	838 616 (cv=0.16)	AC18/Doc.4-05 to ASCOBANS
	IIIa, IV, VIId	All	All vessels > 15 m							0	ICES (2012-draft)
	IIIa	DK	DK Vessels < 15 m						2010	7 Tot rep. 8 Tot rep.	Danish Directorate of Fishery (2011)

The UK similarly concluded that the situation in the North Sea was unclear in its 2011 report under 12/2004 (Northridge et al. 2011):

"The principal area of concern for cetacean bycatch remains the south-western waters of the Western Channel and Celtic Sea. The situation in the North Sea remains unclear as only one porpoise has been reported caught among 82 observed hauls in the past four years. Monitoring is now being focused on these two areas and as sufficient data are compiled, more robust estimates of current bycatch rates will become available.

... The UK is now undertaking more limited monitoring in its pelagic trawl fleets, except where cetacean bycatch is known to be a concern, or where there is insufficient information to form an assessment of likely take rates. Most sampling effort is now directed at under 7.5m vessels using static gears in Subareas VII and IV, while the over 7.2m vessels that are involved in ongoing trials of acoustic mitigation devices are also subject to ongoing collaborative study.

... Although there is at present no evidence of a major conservation issue for either common dolphins or porpoises in our waters, the UK is committed to reducing cetacean bycatch to the lowest level possible and to sustainable fishing practices that minimise damage to the environment, with an overall vision for "clean, healthy, productive and biodiverse seas".

□

The need for a flexible approach has been emphasised for both monitoring and mitigation measures (European Parliament 2010, 2015 2010abc, 2011b), in particular in view of the changes in porpoise distribution patterns in recent years (Hammond et al. 2002, 2007 NS-II 2008, Wien 2010).

□

4.5 Review of current pingers, development of alternative pingers and gear modifications (Protection 5)

This item has been thoroughly reviewed by the previous coordinators (Leaper & Papastavrou, 2010). We will here only refer to the review performed by the 2015 SWG Y (2010c, 2011b), as well as to the information provided by 19_4-06.

□

The UK has applied for derogation under article 3 of Regulation 12/2004 in order to trial an alternative pinger device with different specifications. Much of the UK research has, and will continue to focus on the harbour porpoise. Initial evidence has been very encouraging; with the devices proving safe to use and significantly reducing harbour porpoise bycatch.

□

The Belgian project WKO⁶ running in 2009-2011 targeted an integrated assessment of direct ecosystem effects of trammel net and beam trawl fisheries for the Belgian part of the North Sea (PNS), inclusive bycatch. The work packages are (1) quantification of the major direct, short-term effects of trammel net and beam trawl fisheries at the PNS, (2) the development and application of a methodology for sensitivity assessment of key species of each of the ecosystem components (endo-, epifauna, fish, seabirds and marine mammals), (3) the making of spatio-temporal distribution maps of these key species and (4) the integration of sensitivity maps of the key species and fishing effort.

□

4.6 Finalise management procedure approach for determining maximum allowable bycatch limits in the region (Protection 5)

The information coming from the two countries having made comments is directly lifted from appendix 6.

□

Belgium

As the range of the harbour porpoise population in the North Sea is far greater than Belgian waters, this should be discussed at an international level. However, the maximum bycatch level has been proposed as 1.7% of the population present in Belgian waters in the framework of the conservation objectives for protected species and habitats consistent with W and 2007 NS proposals. This level will also be discussed in the national

⁶http://www.belspo.be/belspo/ssd/science/projects/WKO%20II_%20N.pdf

implementation of the MSF. It will take account of the seasonal occurrence of the harbour porpoise in Belgian waters, and with recreational and professional fisheries.

United Kingdom

Work to finalise a management procedure for determining maximum allowable anthropogenic removals for harbour porpoise is ongoing. It has been recognised by regulators, statutory nature conservation advisors and scientific experts that additional work will be required in order to establish a management procedure approach for cetaceans in general. In particular, we would need:

- Improved cetacean abundance and distribution data including trend data;
- Some sort of estimate of population size and carrying capacity;
- Refined approaches for predicting population level effects; and
- Define acceptable limits of disturbance.

Work on this topic is currently driven by the uncertainties surrounding the risks of population level effects on European Protected Species (EPS) from offshore wind farm proposals. When advising on license applications, regulators and the statutory nature conservation agencies will need to articulate what we believe injuring and/or disturbing EPS will mean for their favourable conservation status (FCS), i.e. we need to assess what number of individuals could be removed from the population through injury or disturbance without compromising its FCS.

In order to inform the consenting process for offshore wind farms, the statutory nature conservation advisors have submitted a document to relevant consenting authorities which contains our recommendations on what we think is required in order to effectively detect and manage cumulative impacts from offshore wind farms on marine mammal populations, particularly harbour porpoise. This includes the identification of suitable approaches to tackle key knowledge gaps including approaches for predicting population level effects and defining acceptable limits for disturbance. Currently, the UK is waiting for the regulator's responses to the recommendations.

4.7 Monitoring trends in distribution and abundance of h in the NS (P Action 7)

Large scale NS surveys

The 2002 NS surveys (Hammond et al 2002 and 2002 NS-II 2008) have shown that the abundance of harbour porpoise in the North Sea during July 2005 2002 NS-III surveys was not significantly different from the estimate generated from the July 1994 2002 NS surveys. However, a large-scale southward shift in distribution was evident with densities of porpoises in the southern North Sea being much higher than in the north in 2005, compared with the opposite pattern in 1994.

No synoptic large scale surveys have been undertaken since 2005.

Small scale NS surveys

Finer scale information on abundance and distribution is essential to assess the impact of several anthropogenic threats other than bycatch and as a basis for management plans to ensure the favorable conservation status of these species in the framework in particular of local management as for example in SPS. Many initiatives have been taken recently at different times of the year within the North Sea. We report here on those carried out in 2010 and 2011, as well as future ones.

2010 Two aerial surveys were carried out in the northeastern part of the German North Sea, in the area of the Spil Silt Duter Reef. In June 2010, an effort of 1.660 km could be achieved and a total of 309 harbour porpoise sightings (381 individuals, of these 33 calves) were recorded. In July 2011, effort has been comparable with 1.620 km, but the sighting rate was much lower: a total of 127 sightings with 150 individuals (of these 5 calves) were recorded. (2018_2-05).

In Spring 2010, a second monitoring survey covering the coastal waters of Lower Saxony⁷ was carried out using standard line-transect methods. In 2008, the results showed a higher density of harbour porpoises in the western part than in the eastern part of the area. In general, the densities were lower than in 2008 for reasons unknown. (2018_2-05).

Five dedicated aerial surveys were carried out in the southwestern part of the German North Sea and in parts of neighboring Dutch waters as part of the research around the offshore test field "AlphaVentus" in 2010. Between March and October, a total of 6,500 km were covered on effort and a total of 397 harbour porpoise sightings (730 individuals, of these 34 calves) were recorded. The highest density has been estimated in June 2010, the lowest in October 2010. (2018_2-05).

Two aerial surveys were carried out in the area of the East Frisian Islands, in April and May 2010. These surveys in the coastal sea revealed a high density of harbour porpoises in May, with a pronounced west-east gradient. (2018_2-05).

Seawatching continued in the nearshore area in Holland providing information on population trends and seasonal pattern in coastal waters (See Van Amphyusen & Siemensma 2011 for a review).

In 2009, a dedicated aerial survey was conducted in March 2010, providing a coverage of 80% of the Dutch sector, compared with 50% the year before (Scheidat et al. 2011).

In Belgium waters, a regular monitoring of the presence and distribution of harbour porpoises was performed, amongst others in the framework of the evaluation of the effects of the construction and operation of offshore wind farms, using aerial surveys (distance sampling) and passive acoustic monitoring (PoDs) (Haelters et al. 2011).

2011 The Cetacean Research and Rescue Unit conducted systematic line-transect surveys along a 2 km stretch of coastline in the southern Moray Firth between May and October, aimed mainly at minke whales but recording all cetaceans (appendix 6, section point 7).

Two surveys have been conducted in 2011 on the Hogger bank and adjacent areas (UK, NL, UK, UK waters) in order to investigate the importance of this marine feature as an habitat for marine mammals. A dedicated aerial line transect survey was conducted in summer (Gilles et al. 2011 19_5-08). The highest encounter rates were achieved in UK and Danish/German waters. Highest porpoise density was estimated for the western and north-eastern part of the survey area whereas over the sandbank itself and to the southeast relatively low densities were estimated. IFW conducted a boat-based acoustic and visual line transect survey for harbour porpoises was conducted during winter 2011 over the Hogger bank and southern North Sea in UK, Dutch, Danish and German waters (Lucknell 2011 19_5-03). The weather impacted the visual weather and the analysis of the acoustic survey is presently carried out. Only 13 thirteen sightings of harbour porpoises were made but the preliminary analysis of acoustic data indicates at least 50 times more detections than sightings.

In Belgium waters, the estimates of harbour porpoise densities (aerial surveys) in early Spring 2011 were the highest ever recorded (2019_2-01), with average densities in March estimated at 2 to 3 harbour porpoises per km² (Haelters et al., 2012, in press). anecdotal reports also indicated that harbour porpoises were commonly encountered during summer months.

IFW conducted a survey in May-June in the French and British waters of the English Channel (Marine Conservation Research International, 2011). The distribution of harbour porpoises in the Channel appears to be linked to depth, with the majority of encounters occurring in depths of 50-100 metres. In addition, most of the harbour porpoise encounters occurred in the western area of the Channel, away from the major shipping lanes and shallow uniform topography of the eastern Channel.

2012 Shipboard Sighting Survey is planned for the summer 2012 mainly for covering the GPP area with regards to the Gap area plan, but which likely also cover the Skagerrak area. (2019_4-02).

⁷<http://www.wattenmeer-nationalpark.de/nds>

In France in relation with the MMPs the acoustic detection of porpoises has been done experimentally in 2011 and will be operational in 2012. A series of dedicated aerial surveys will be conducted from summer 2011 to winter 2012-13 covering the entire EEZ. They will be divided into several layers including the coastal layer encompassing the majority of the Natura 2000 sites (PMM 2012).

The recent aerial surveys are following the methodology defined in NS-II (2008) and a synoptic presentation of their results would provide a large coverage of the Southern North Sea.

4.8 Review of the stock structure of harbour porpoises in the region

The NS surveys have made an evidence of a large-scale southward shift in distribution with densities of porpoises in the Southern North Sea being much higher than in the North in 2005, compared with the opposite pattern in 1994. This tendency has been confirmed with the comeback of porpoises in the early 21st century in Belgian and Dutch waters, as well as in the Channel, where it was close to local extinction (for a review see Amphuysen & Siemensma 2011).

In France, the University of Forest and Oceanopolis are currently analyzing the genetic polymorphisms of a fragment of the mitochondrial control region (mtNCR) and of nuclear microsatellite loci for 2 animals stranded and by-caught between 2000 and 2010 along the Atlantic French coasts. The analysis of nuclear and mitochondrial genomes led to contrasting results. The mtNCR revealed two genetically distinct groups, one closely related to the Iberian and African harbour porpoises, and the second group related to individuals from the more northern waters of Europe. In contrast, nuclear polymorphisms did not retrieve such group distinction. Nuclear markers suggested that harbour porpoises behaved as a random mating unit along the Atlantic coasts of France. The difference between the two kinds of markers can probably be explained by the difference in their heritability, the mtNCR being maternally inherited in contrast to nuclear loci that are bi-parentally inherited. The results provide evidence that a major proportion of the animals sampled are admixed individuals from the two genetically distinct populations previously identified along the Iberian coasts and in the North East Atlantic. The French Atlantic coasts are clearly the place where these two previously separated populations of harbour porpoises are now meeting. It's strongly suspected that the present shifts in distribution of harbour porpoises around French coasts may be caused by habitat changes that will need to be further studied (see appendix 3, Action point 3).

Veegaard et al (2011a) and Eilmann et al (2011) confirm the presence of three separate harbour porpoise populations in the waters between the North Sea and the Baltic Sea using telemetry data and acoustic surveys. The three populations inhabit 1) North Sea and Skagerrak, 2) Kattegat, the Belt Sea, the Sound and the Western Baltic (named the Belt Sea population) and 3) the Inner Baltic, respectively. These results endorse the three management units proposed by the SPO/NS/HLE/OM for this region (1) Northeastern North Sea and Skagerrak, 2) Inner Danish waters and 3) Baltic Sea (SPO/NSWGMM 2010).

4.9 Collection of incidental porpoise catch data through stranding networks (Action 3)

The North Sea range states have organized stranding networks and report stranding events to SPO/NS, although not always the most useful way. Exchange of formats is recommended, in particular separating the reporting by SPO/NS areas.

There is no general North Sea stranding database and a workshop was organized at the SPO conference at Pádiz, Spain, in 2011, to discuss the feasibility and use of an SPO/NS-wide database on strandings (Jauniaux et al 2011).

Strandings and the identification of the proportion of by-caught animals among them can help revealing the bycatch issue, as it has been the case for example in Holland (e.g. Amphuysen & Siemensma 2011 for

review). They provide the minimum number of porpoises being by-caught. In its 2011 report [22] SWG [22] (2011) notes that strandings can sometimes provide a useful way of identifying potential bycatch problems and could be used as a spur to develop monitoring programmes to investigate bycatch in specific times or areas and specific fisheries more thoroughly”.

Appendix 7, which is not completed, collates the number of strandings in the North Sea, the proportion of porpoises necropsied and the proportion of them diagnosed as by-caught in the last five years, thus contributing to minimal bycatch figures for the area.

4.10 Investigation of the health, nutritional status and diet of harbour porpoises in the region

Only limited effort has been devoted to this function by the coordinator and we refer to the review of Amphuysen & Siemensma 2011.

The seven North Sea range states use similar necropsy protocols and by-catch diagnoses (Kuiken & Garcia Hartmann 1992, 1993; Kuiken 1994ab). However, necropsy of stranded or by-caught animal are not performed in a systematic way in all countries. Denmark does not for example, most animal being simply destroyed. In Germany funding for health studies and pathological investigations have been very reduced in the last years, only allowing to examine 5-10 porpoises and stopped in 2011 (Siebert, pers. comm.). Several range states perform, at different level, studies on health and diet.

Diet studies from 24 stranded porpoises have been conducted in Belgium (Appendix 6 - Section 10, Haelters et al. 2011). Around 50 more stomach contents will be analyzed during follow-up project in 2012. Sveegaard (2011) analysed the spatial and temporal distribution of harbour porpoises in relation to their prey.

In UK (Appendix, Section 10), the SIP carries out necropsies on a sample of stranded porpoises each year, which provides indications on the health, nutritional status and diet of harbour porpoises in the region. Additional projects are looking at the health of harbour porpoises and other cetaceans in UK waters. These include: ‘Effects of contaminants on reproduction in small cetaceans’, a phased project to investigate the effects of contaminants on the reproductive output in males and females (St. Andrews University). Additional summary information on actions and 10 is also available in the Harting Progress⁸, a comprehensive report on the state of the UK seas.

Bacteriological studies have continued in Belgium (e.g. Dauniaux et al. 2011a) and Dauniaux et al. (2011b) looked at the relationship between biological, pathological and toxicological parameters and the cause of death in harbour porpoises stranded on the coast of Belgium and northern France. In Denmark, Galathius et al. (2011) analysed the repartition and temporal variations of perfluorochemicals in harbour porpoises from the Danish part of the North Sea by-caught between 1980 and 2005.

4.11 Investigation of the effects of anthropogenic sounds on harbour porpoises

This task has not been given priority so far, as it is also taken thoroughly up under the S2O22 NS for, e.g., the Interseasonal Working Group on the assessment of acoustic disturbance (S2O22 NS 2010) and the Noise Working Group (S2O22 NS 2011).

Studies have been continuing in Belgium (military activities with report available in 2012, and wind farms, Appendix 6 - Section 11), Germany (wind farms, e.g. Scheidat et al. 2011), Denmark (wind farms, e.g. Prandt et al. 2011), the Netherlands (military sonar, e.g. Kastelein et al. 2011abc), UK (seismic surveys, noise propagation, e.g. Thompson et al. 2011).

⁸ <http://chartingprogress.defra.gov.uk/cetaceans>

Defra and the UK Ministry of Defence have set up a Military Underwater Sound Stakeholder Forum which gives the opportunity for industry, non-government organizations and other interested stakeholders to engage directly with government to raise their concerns (appendix 6, Action 1). Defra committed to working with JNCC to produce guidance on deliberate disturbance and injury following the making of the Offshore Marine Regulations 2007 (appendix 6, Action 1). The guidance⁹ document illustrates a preventative approach to ensure the strict protection of MPS in their natural ranges as required by article 2.2 of the Habitats Directive.

4.12 Collection and archiving of data on anthropogenic activities and development of a GIS.

No progress was made by the coordinator under this task.

Progress has been made in Belgium in the framework of the projects W2KO and W2KOII, funded by the Federal Science Policy, where an overview was made of the seasonal and spatial distribution of different fishing methods. The distribution of other human activities (e.g. shipping) and their consequences (e.g. eutrophication) are also assessed in other fora. However, data on anthropogenic activities are not assessed in Belgium with the specific aim to assist in the conservation of small cetaceans.

Summary information on actions 9 and 10 is also available for the UK in the charting progress¹⁰, a comprehensive report on the state of the UK seas.

5. General remarks and proposed work plan

It was stated in the PP that major information gaps needs to be filled for fully assessing the situation and being able to recommend effective and adequate conservation measures, this both with respect to the harbour porpoise itself (feeding ecology, behaviour around nets) and the human activities it is subject to and their actual/potential impact; 2) Monitoring was essential for informing trends in the conservation status (i.e. in the species, the threats, the implementation and efficiency of the mitigation measures) and informing the effectiveness of the management actions, and if necessary adjust them, to achieve the established conservation aims.

At present, the situation in the North Sea remains, for the most part, unclear, with very patchy information in most domains and especially on bycatch level pressures.

Clearly,

- with the situation in the North Sea as unclear as it is regarding bycatch pressure,
- with concerns raised in the Eastern and Western Channel and the Baltic Sea,
- with new results also raising concerns in the Norwegian North Sea and Skagerrak waters,
- with a lack of monitoring in many segments of the fleet, where unknown but possibly/likely high bycatch occurs,
- with the results from a Norwegian survey in the northern North Sea in 2009 (Øien, 2010) suggesting further declines in this area relative to the 2002 NSII data in 2005,

It is essential to start planning the third synoptic survey of the North Sea for, at the latest, 2015, as recommended by the NSII (2008).

In parallel, it is important that effort is made to ensure the 2020s efficient in the protection of harbour porpoises (implementation, establishment of clear conservation objectives, etc...). Likely common position on these would help, particularly in the Hogger Bank area. First step would be to review the present situation in each country and the potential of the existing/coming 2020s for harbour porpoise conservation. (PSSWGMM (2011))

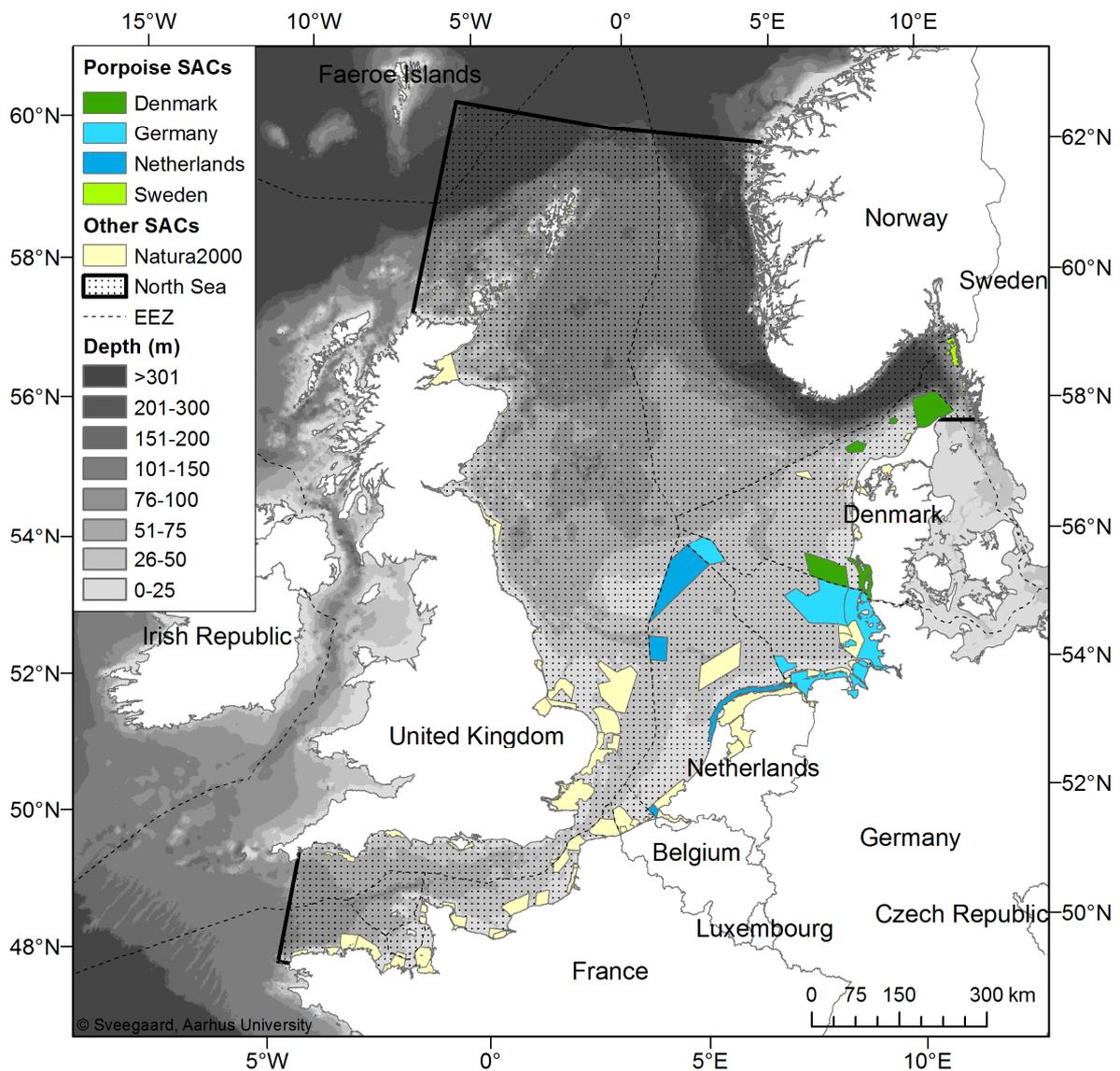
⁹ http://jncc.defra.gov.uk/PDF/consultation_epsGuidance%20disturbance_all.pdf

¹⁰ <http://chartingprogress.defra.gov.uk/chapter-4-clean-safe-seas>

developed a catalogue of the Marine Protected Areas for marine mammals in the IFFS area and evaluated the efficiency of MPAs for cetaceans. At present, the SACs in the North Sea look as illustrated in Figure 1.

It is essential that the SG and SPOONS as large develop and propose to the European Commission specific plans for monitoring and mitigating bycatch of the harbour porpoise in the North Sea, as input to the IFFS and MSF.

Figure 1. Present Natura 2000 areas in the North Sea. Thanks to Signe Sveegaard for having preparing the map.



Hooker SK, Mañadas M, Hyrenbach K, Orrigan P, Polovina J, Reeves RR. 2011. Making protected area networks effective for marine top predators. *Endangered Species Research* 3:203–211.

ICES. 2009. Report of the Study Group for Bycatch of Protected Species (SGBY), 19–22 January 2009, Copenhagen, Denmark. *ICES M* 2009/OM:22. 17pp.

ICES. 2010a. Request to Cetacean Bycatch Regulation 12/2004. Item 2, Special Request Advice May 2010.

ICES. 2010b. Request to Cetacean Bycatch Regulation 12/2004. Item 3, Special Request Advice October 2010.

ICES. 2010c. Report of the Workshop to Evaluate Aspects of Regulation 12/2004 (WKR V812). *ICES M* 2010/OM:66. 7pp.

ICES. 2011a. Report of the Joint NEMM/O/ICES Workshop on Observation Schemes for Bycatch of Mammals and Birds (WKOSOM), 28 June–1 July 2010, Copenhagen, Denmark. *ICES M* 2010/OM:33. 40pp.

ICES. 2011b. Report of the Workshop to Evaluate Aspects of Regulation 12/2004 (WKR V812). *ICES Advisory Committee*.

ICES GY. 2010. Report of the Study Group on Bycatch of Protected Species, 1–4 February 2010, Copenhagen, Denmark. *ICES M* 2010/OM:25. 23pp.

ICES GY. 2011. Report of the Working Group on the Bycatch of Protected Species *ICES Advisory Committee*.

ICES WGM. 2010. Report of the Working Group on Marine Mammal Ecology. April 2–15 2010, Horta, the Azores.

ICES WGM. 2011. Report of the Working Group on Marine Mammal Ecology. *ICES M* 2010/OM:25.

ICES WKOSOM. 2010. Report of the Joint NEMM/O/ICES Workshop on Observation Schemes for Bycatch of Mammals and Birds. *ICES M* 2010/OM:33.

Jauniaux J, Perez M, Frete J, Godfroid J, Haelters J, Jacques J, Kerckhof F, Mast J, Sarlet M, Moignoul F. L. 2011a. *Brucella* infection in harbour porpoise (*Phocoena phocoena*). Merging infectious diseases 6(12): 1966–1968.

Jauniaux J, Mas K, Haelters J, Jacques J, Kiszka J, Pezeril S, Stekké V, Weijs J, Moignoul F. 2011b. Relationship between biological, pathological and toxicological parameters and the cause of death in harbour porpoises (*Phocoena phocoena*) stranded on the coast of Belgium and northern France between 1990 and 2008. European Cetacean Society conference, Madrid, Spain.

Jauniaux J, Meuwae K, Jacques J, Haelters J, Scory J, Moignoul F. 2011. The Belgian Marine Mammals Network Workshop on the interest and feasibility of web-accessed database for marine mammals strandings and necropsy data in the SNSO/NSO region. European Cetacean Society conference, Madrid, Spain.

Kastelein R, Hoek J, De Jong R. 2011a. Hearing thresholds of harbour porpoise (*Phocoena phocoena*) for sweeps (1–2 kHz and 6–7 kHz bands) mimicking naval sonar signals. *Journal of the Acoustical Society of America* 129(5): 3393–3399.

Kastelein R, Hoek J, De Jong R. 2011b. Hearing thresholds of harbour porpoise (*Phocoena phocoena*) for helicopter dipping sonar signals (1.431.33 kHz (L)). *Journal of the Acoustical Society of America* 129(5): 679–682.

Kastelein R, Hoek J, De Jong R. 2011c. Effect of broadband-noise masking on the behavioural response of harbour porpoise (*Phocoena phocoena*) to 1-s duration 6–7 kHz sonar up-sweeps. *Journal of the Acoustical Society of America* 129(4): 2307–2315.

Kindt-Larsen L, and Alskov B. 2010. Pilot study of marine mammal bycatch by use of an electronic Monitoring System. Report for TUNQUA, January 2010.

Kindt-Larsen L, Kirkegaard K and Alskov B. 2011. Fully documented fishery: a tool to support catch quota management system. *ICES Journal of Marine Science*, 68(8), 1606–1610. doi: 10.1093/icesjms/fsr065.

Kuiken T. (ed.) 1994b. Diagnosis of by-catch in cetaceans. Proc. 2nd. ICS Workshop on Cetacean Pathology, Montpellier, France, 22 March 1994. European Cetacean Society Newsletter Nr. 26 (special issue).

Kuiken T. 1994a. Review of the criteria for the diagnosis of by-catch in cetaceans. In: Kuiken T. (ed.) Diagnosis of by-catch in cetaceans. Proc. 2nd. ICS Workshop on Cetacean Pathology, Montpellier, France, 22 March 1994. European Cetacean Society Newsletter 26: 38–43.

Kuiken T. & Hartmann M. G. 1992. Draft standard protocol for the basic postmortem examination and tissue sampling of small cetaceans. Guidelines and form. Resulting from the 1st ICS Workshop on Cetacean Pathology: Dissection techniques and tissue sampling, Leiden, 13–14 Sep 1991. *IJL ICS Newsletter* No. 4.

Kuiken T. & Hartmann M. G. 1993. Cetacean pathology: dissection techniques and tissue sampling. Proc. first workshop, Leiden. *ICES Newsletter* 7 (special issue): 1–39.

Marine Conservation Research International. 2011. Final Report of the Survey for Harbour Porpoises conducted from R/V Song of the Whale in French and British waters of the English Channel, May to June 2011. 23pp.

Northridge, S and Kingston, I. 2010. UK annual report on the implementation of Council Regulation (EC) No 12/2004 of 2009 UK. <http://archive.defra.gov.uk/environment/marine/documents/interim2/reg8122004-2009report.pdf>

Northridge, S. 2011. In view of the state of bycatch monitoring and mitigation measures being implemented in European fisheries. *IW* 63/SM21.

Northridge, S., Kingston, I. & Thomas, L. 2011. UK annual report on the implementation of Council Regulation (EC) No 12/2004 of 2010. Øien, N. 2010. Report of the Norwegian 2009 survey for minke whales within the Small Management Area in the North Sea. *IW* 62/RMP7: 6pp.

ICOMM. 2012. Serial surveys for observation of seabirds and marine mammals within the maritime domain of mainland France and its adjacent waters. Update Nov. 2011. NEMM/OIS/19/TN/SS2/O/05.

Proelss, K, Krivickaite, M., Gilles, M., Herr, H., Siebert, U. 2011. Protection of cetaceans in European waters – the case study on bottom-set gillnet fisheries within marine protected areas. *The International Journal of Marine and Coastal Law* 26: 35–45.

SNSO 2008. Small cetaceans in the European Atlantic and North Sea. Final Report submitted to the European Commission under project LIFE04NT/G/000245, available from MRU, University of St Andrews, St Andrews, UK.

Scheidat, M., G. Marts & H. Verdaat 2011. Using Aerial Surveys To Estimate Density and Distribution of Harbour Porpoises in Dutch Waters. Manuscript MRS.

Scheidat, M., T. Tougaard, B. Rasseur, S. Starstensen, D. Van Polanen Petel, T. Teilmann, T. & R. Reijnders, P. 2011. Harbour porpoises (*Phocoena phocoena*) and wind farms: a case study in the Dutch North Sea. Environmental Research Letters 6: 025102.

Sveegaard, S. 2011. Spatial and temporal distribution of harbour porpoises in relation to their prey. PhD thesis. National Environmental Research Institute, Aarhus University, Denmark.

Sveegaard, S., T. Teilmann, T. Tougaard, M. Ietzer, M. Mouritsen, K. N. Jespersen, G. Siebert & (2011b) High density areas for harbour porpoises (*Phocoena phocoena*) identified by satellite tracking. Published Online in Mar Mamm Sci: May 2010 DOI: 10.1111/j.1748-7692.2010.03793.x

Sveegaard, S., T. Teilmann, M. Ietzer, M. Mouritsen, K. N. Gillespie, T. Tougaard & (2011a) Acoustic surveys confirm areas of high harbour porpoise density found by satellite tracking. IAGLR Journal of Marine Science 68: 929-936

Teilmann, T., Sveegaard, S., Ietzer, M. 2011. Status of a harbour population: evidence for population separation and declining abundance. In Sveegaard 2010. Spatial and temporal distribution of harbour porpoises in relation to their prey. PhD thesis.

Thompson, P., M. Crookes, K. Heney, M. Bates, H. Richardson, N. & M. Barton. T. 2011. Assessing the potential impact of oil and gas exploration operations on cetaceans in the Moray Firth. Available at <http://og.decc.gov.uk/assets/og/environment/mf-results2.pdf>

2
2

Appendix 1.

Answers given by parties to the North Sea SG to the SG action points identified at its last meeting in Bonn, May 2011.

Background

At its last meeting in May 2011 in Bonn, the NSSG identified four action points:

1. Each country should conduct and submit an inventory on the activities in regard to Harbour porpoise conservation in the North Sea, identifying the key persons involved. It was agreed that the 12 action points identified in the S2O22 NS Conservation Plan for Harbour Porpoises (*Phocoena phocoena* L.) as adopted at the 16th Meeting of the Parties to S2O22 NS (2009) (document 16/02.21(WG)) will serve as the format for the inventory. (P04)
2. The New North Sea Plan coordinator will be asked to attend the NSR meeting in Boulogne-sur-Mer, France October 10th, 11th, 2011.
 - o The chair of the SG will initiate contact to the NSR and announce the attendance and ensure the option for a ca. 15 minutes presentation to the meeting participants. (P05)
3. The new North Sea coordinator will be asked to prepare a paper that highlights the aspects of the Marine Strategy Framework Directive (MSF) relevant for the NSSG, take into account ongoing national work. (P06)
 - o The NSSG shall give guidance to the coordinator (P07). This paper shall help parties to prepare National Strategies of implementation of the MSF that would then also include the objectives of the S2O22 NS North Sea Plan.
4. Parties shall assist the new coordinator to reach relevant organisations, particularly fisheries, also including those operating small boats and inshore, e.g. by providing information in meetings and contacts details.

The SG agreed on a deadline for the above-mentioned actions, which is set to December 20th, 2011. Information will be sent to the new North Sea coordinator (with a copy to the chair of the SG).

Answers provided by member states to point 1, 3-4.

1. Each country should conduct and submit an inventory (to the North Sea coordinator) on the activities in regard to Harbour porpoise conservation in the North Sea, identifying the key persons involved. It was agreed that the 12 action points identified in the North Sea Action Plan will serve as the format for the inventory. (P04)

Belgium: Provided.

Denmark: Not provided, although some documents were provided

France: Partially provided

Germany: Key documents sent by post, as a background for the German activities for the protection of harbour porpoises in the North Sea:

a) Brief information about our Federal Nature Conservation Act as legal frame of nature protection including harbour porpoise protection issues. (March 2010, 35pp)

b) Our National Strategy on Biological Diversity as the essential programme for Nature protection in marine areas too. (October 2007, 178pp)

c) (2006) on the protection of Marine Natura 2000 Sites (research and Protection for the North Sea and the Baltic Sea).

d) National Strategy for the Sustainable Use and Protection of the Seas. (September 2008, 55pp)

e) Report on the State of Nature by the German Federal Government for the 16th Electoral Term. (February 2009, 70pp)

Furthermore you might check our webpage www.bmu.de and click under "English" there you will find e.g. information concerning our "Ordinance on the Conservation of Species (Artenschutzverordnung)".

Beyond the ongoing activities (cf. above and below) our next step in national implementation will be to focus on all actions and issues related to bycatch in the Baltic Sea too. For this purpose we have arranged a meeting with our Ministry in charge of fishery to clarify how to tackle the respective actions. The recent report of the Commission on the implementation of the bycatch regulation (KOM (2011) 78) will give you an evaluation of the current situation. Please check for ongoing actions (like strandings and analysis of carcasses or sound protection, when granting allowances for marine windparks etc.) our previous annual reports too, which you will find on the SONS webpage.

Netherlands: Not provided, but action plan 2011 provided

Sweden: Sweden has not yet compiled the annual National Report of 2011. At this point we will have to refer to reports from earlier years. Attached you will find the report from 2010 and also the summary of the Swedish action plan 2008-2013.

UK: Provided, together with many relevant documents.

2. The new North Sea coordinator will be asked to prepare a paper that highlights the aspects of the Marine Strategy Framework Directive (MSF) relevant for the NSSG, take into account on-going national work (P06). The NSSG shall give guidance to the coordinator. This paper shall help parties to prepare National Strategies of implementation of the MSF that would then also include the objectives of the SONS North Sea Plan. (P07)

Belgium: -

Denmark: -

France: -

Germany: The answer from Hans-Georg Neuhoff, MU Unit W205 in charge of the implementation of the Marine Strategy Framework Directive, is as follows. OSP R is in the process of revising its document related to this question and is going to prepare a revised document for the meeting (13.17.3.2012), it is preferable to wait for this document, because it will also be the subject of a discussion at the U.

Netherlands:

Sweden: The only suggestion at this time is that this question is kept open since the MSF is still in its initial phase and MS are quite busy with the initial assessment right now. The question, however, certainly needs to be addressed when MS will formulate their programmes of measures.

UK: On MSF, we would highlight the need to make sure the relevant contacts responsible for implementation of the Directive in each Member State are made aware of this work - either through the different Regional Seas Conventions or via the U level working groups i.e. WG-GS.

It would be useful for the MSF to use relevant SONS targets for cetaceans. This was acknowledged in the recent OSP R WG-OEM workshop where the proposals on by-catch in particular suggested using SONS agreed thresholds. Unice Pinn has been leading the work on UK MSF targets for cetaceans, including harbour porpoise, in order to ensure the two are aligned so they may be able to provide further information.

3. Parties shall assist the new coordinator to reach relevant organisations, particularly fisheries, also including those operating small boats and onshore, e.g. by providing information on meetings and contacts details.

Belgium: Contact given also to beach fishery association (using Gill and Tangle Net)

Denmark: Contact given to the Danish Fishery Organisation

France: -

Germany: Contact for the Deutscher Fischerei-Verband e.V. (Union der Berufs- und Sportfischer / German Association of fishery registered organisation / Union of professional and recreational fishermen) has been provided.

Netherlands:

Sweden: Contacts for the Swedish Fishermen's Federation has been provided, incl. contacts to all the departments.

UK: Contact have been provided for the Marine Management Organisation (MMO) and the Association of Inshore Fisheries Conservation Agencies (IFAs), with suggestion for a contact person.

You could also look at what NFF and NFF are doing in terms of mitigating by-catches for certain shark species as there may be some useful lead across here. NFF is probably more relevant given the sea area it covers.

Appendix 2. Key persons in the conservation of harbour porpoises in the North Sea

The information in Grey has not been received from the contact person and may be the exact, especially with regards to field of action. Contact fisheries: G, G and regular, e.g. through projects.

Institutes	Person	Relevance to HPNS actions	Contact fisheries	email
S	Swedish University of Agricultural Sciences (SLU), Department of Aquatic Resources	2, 3, 4, 5	G	sara.konigson@slu.se
	Equatorial Water Research	11 (SMMH)	G	svengunnar.lunneryd@slu.se
	Kolmården Jurypark	(SMMH)		julia.carlstrom@aquabiota.se
	Swedish Museum of Natural History	(SMMH)		ida.carlen@aquabiota.se
	Swedish Species Information Center/Portportalen	9, 10		mats.amundin@kolmarden.com
Swedish Agency for Marine and Water Management (SWM)	Biodiversity		anna.roos@nrm.se	
Swedish Defence Research Agency	Erland Lettevall		erland.lettevall@havochvatten.se	
K	TU National Institute of Aquatic Resources Section of Fisheries and Technical University Denmark	11		torbjorn.johansson@foi.se
	Aarhus University, National Environmental Research Institute	2, 3, 4, 5		fi@aquadtu.dk
	Fishery and Maritime Museum Danish Nature Agency Fjord and Belt	2, 3, 4, 5		lol@aquadtu.dk
	Federal Agency for Nature Conservation (FN)	7, 8, 11 (SMMH)		jte@dmu.dk
	Federal Maritime and Hydrographic Agency (SH)	9		lfj@fimus.dk
	Federal Ministry of Defence Research and Technology Center West Coast (FTZ) Büsum German Oceanographic Museum Johann Heinrich von Bünen Institute for Sea Fisheries (VTI)	H		MFM@nst.dk
Lower Saxony State Office for Consumer Protection and Food Safety (LVS) Institute for Fish and Fishery Products National Park Administration Wadden Sea of Hamburg and Lower Saxony	Magnus Walberg		magnus@ford-baelt.dk	

	Ministry of Economic Affairs, Agriculture and Innovation	Folchert van Nijken	Focal Point: SO, NS, TS, EURO, TSE		f.van.dijken@minlv.nl
NL	IMRIS Wageningen UR	Sanne van Luis	Implementation / Outreach		S.vansluis@mineleni.nl
		Meike Scheidat	Science		meike.scheidat@wur.nl
		Ram Douperus			ram.douperus@wur.nl
		Martine van den Heuvel-Greve	Chair of North Sea		martine.vandenheuvel-greve@wur.nl
		Marje Siemensma	Co-author Outreach		m.siemensma@msandc.nl
		NIOZ	Kees van der Kamp	Co-author Outreach	
FR	Royal Belgian Institute of Natural Sciences, Management Unit of the North Sea Mathematical Models (MUMM)	Jan Haelters	Science		j.haelters@mumm.ac.be
		Jean-François Verhegghen	Fisheries / Mm		jean-francois.verhegghen@lv.vlaanderen.be
		Sophie Mirgaux	Nature Conservation		
		Martine Bigan			martine.bigan@developpement-durable.gouv.fr
		Yvon Morizur	3,4,5		Yvon.Morizur@ifremer.fr
		MP / Troise	7,9		cecile.lefeuvre@aires-marines.fr
UK	PHE GIS / Université de La Rochelle / INRS Oceanopolis / MIM	Vincent Ridoux			vincent.ridoux@univ-lr.fr
		Willy Dabin	3,7,8,9,10		willy.dabin@univ-lr.fr
		Sami Hassani	7,8,9		sami.hassani@oceanopolis.com
		Simon Northridge	2,3,4,5,6		spn1@st-andrews.ac.uk
		Kingston			ark10@st-andrews.ac.uk
		Unice / Inni	7		eunice.pinn@jncc.gov.uk
UK	Metacean Stranding Investigation Programme / SIP	Rob Deaville	9,10		rob.deaville@ioz.ac.uk
		Sonia Mendes	Inventory / Guidance / on / W / noise		Sonia.Mendes@jncc.gov.uk

Appendix B: Information on Fisheries Organisations, focussing on those operating small boats and inshore fisheries

** Representing Professional Fisheries, Recreational Fisheries, Sea-fisheries, Coastal Fisheries. Rep: Represented.

Fishermen's Organisations		Real relevant to North Sea/Other interesting details	**	** Area	Rep: NSR	Contact
SE	Sveriges fiskares riksförbund [Swedish Fishermen's Federation]	Report on the West coast (Västskusten), p. 1-4, 6, 8-9, 26	Pro		Y	henrik.svenberg@yrkesfiskarna.se Henrik Svenberg, Chair
DK	Anmarks fiskeriforening [Fisheries Organisation]		Pro	Sea	Y	hl@dkfisk.dk Henrik Lund
DE	Deutscher Fischerei-Verband e.V. [German Fishing Union] [Association of Fishing Union of professional and recreational fishermen]	Deutscher Fischerei-Verband e.V. [German Fishing Union] der Berufs- und Sportfischer [Professional and Sport Fishermen]	Pro Rec		n	deutscher-fischerei-verband@online.de Generalsekretär
NL	Visserbond [Fishermen's Association]	Contact for coastal bottom-set gillnet fisheries	Pro		Y	djtberends@visserbond.nl Dirk Berends
BE	P.O. Rederscentrale [Ship-Owner's Federation]		Pro		Y	rederscentrale@online.be Lut Van der Elde
FR	Comité National des Pêches Maritimes [National Association of Marine Fisheries]	Comité National des Pêches Maritimes des Evages Marins	Pro		Y	cmangalo@comite-peches.fr Caroline Mangalo
IN	Inshore Fisheries and Conservation Authorities	Kent, Sussex, Eastern, North Eastern and Northumberland	Pro	coast	n	stephenbolt@association-ifca.org.uk Stephen Bolt
UK	Marine Management Organisation	http://www.marinemangement.org.uk			n	olaire.bowers@marinemangement.gov.uk Olaire Bowers, Fisheries Officer
SI	Inshore Fisheries Groups	The South Coast and FG	Pro	coast	n	

Appendix 2. International Regulations and Guidelines Relevant to the Conservation and Management of Harbour Porpoises in the North Sea (NS)

Conventions, Agreements, Multilateral Environmental Agreements (MEAs), Regulations and Directives		Date	Biodiversity	Bycatch	Noise	Pollution	Litter	Climate Changes	Sustainable Use	Habitat Conservation	Species Conservation	Welfare	Monitoring/Fishing	Outcome
World Heritage Convention	(UNESCO) Convention concerning the protection of the World Cultural and Natural Heritage	1972						x						Recognizes the way in which people interact with nature, and the fundamental need to preserve the balance between the two. Onstitution of the World Heritage List incl. the Wadden Sea (2009)
London Convention	(UN) London Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter	1972			x									Promote effective control of all sources of marine pollution and take all practicable steps to prevent pollution of the sea by dumping of wastes
CITES	(CITES) Convention on International Trade in Endangered Species of Wild Fauna and Flora (Washington Convention)	1973									x			HP listed in the Appendix I
BMS	(UNEP) Convention on Migratory Species of Wild Animals Convention	1979									x			HP listed in the Appendix II
UNBLOS	(UN) Convention on the Law of the Sea	1982												
EU	(UN) Convention on Biological Diversity	1992	x					x						Ensure the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources. Include access to genetic resources and transfer of technologies, and by appropriate funding.
	(UN) Rio Earth Summit	1992		x							x			Addresses the problem of indiscriminate fishing methods
	(FAO) Code of Conduct for Responsible Fisheries	1994		x							x			as above
	(FAO) Rome Convention on World Fisheries	1995		x							x			as above
GP	(UNEP) Global Programme of Action to Protect the Marine Environment from Land-based Activities	1995			x									
BMS	(UN) Convention on Migratory Species of Wild Animals, Resolution 2	1999		x							x			Bycatch is a major threat for migratory species. Requires parties to minimize incidental mortality
BMS	(UN) Convention on Migratory Species of Wild Animals, Resolution 14	2005		x							x			Bycatch remains a major threat. Requires additional efforts

FP	Regulation No. 2371/2002. Common Fisheries Policy revision (the 970 version).	2002																		"Integration principle" and "ecosystem-based approach" to the management of fisheries resources
	Regulation No. 2371/2002 on the conservation and sustainable development of fisheries resources under the Common Fisheries Policy	2002	x																	"specific measures to reduce the impact of fishing activities on marine ecosystems and on non-target species"
Bycatch Regulation	Regulation No. 12/2004. Amending Regulation No. 898/2004	2004																		"Pinger regulation" to phase out drift nets in the Baltic
	Guidelines for the establishment of fishery coastal and maritime regions, under 2007	2007																		
	Regulation No. 809/2007	2007																		Defining drift net
MSF	Directive 2008/56/EC Marine Strategy Framework Directive	2008																		"Environmental pillar" of the European maritime policy. Good environmental status, GES, for the EU marine waters must be achieved by 2020. Key milestones in 2012, 2014 and 2016.
	Regulation No. 99/2008	2008																		Mandating programme of data collection from fishing vessels, with no qualifications based on vessel size.
	Regulation No. 407/2009 EU Wildlife Trade Regulations	2009																		Complying with modification in 2015, and replacing in next Regulation No. 38/97
	Directive 2009/17/EC	2009																		Establishing community vessel traffic monitoring and information system and setting time line for IS requirements for different size fishing vessel.
	Regulation No. 224/2009	2009																		Establishing community control system for ensuring compliance with the rules of the FP. o., from January, 2012, fishing vessels between 12 and 15 metres' length shall have satellite-based vessel monitoring system
	Treaty of Lisbon, Amending the EU	2009																		Fisheries are included amongst policies which need to take welfare into account (article 3)

References, among others:

- 2015_35(S) Report for the NSRF astarnia Group 2008
- Dutch Action Plan 2011
- Interim report from North Sea coordinators 2010
- Final report from North Sea coordinators 2011
- 2019_4-03 Draft Conservation Plan for the Harbour Porpoise in the area 2011

Appendix 5. National legislations/strategies in force to date and protecting HP in the North Sea directly or indirectly

Red: Important steps; Blue: New legislation. Germany: Territorial Waters lies under the responsibility of the coastal Länder, while EEZ lies under the responsibility of the Federal Government.

Range/States	date	name	output	link
Sweden	2008	Stgärdsprogram för åmlare 2008–2013	Action plan for the conservation of harbour porpoises in Swedish waters. Aim: The stocks of harbour porpoise in Swedish waters should recover to at least 80% of their carrying capacity by 2018.	http://www.naturvardsverket.se/ocuments/publikationer/978-91-620-5846-3.pdf
	2008	"Better Management of the Marine Environment" Marine Spatial Planning, MSP	New planning system for Sweden's sea areas, guided by an ecosystem approach and based on marine spatial plans similar to the comprehensive plans for land areas and containing binding components in the form of fixed zones for use and protection.	http://www.unesco-ioc-marinesp.be/msp_practice/sweden
Denmark	1996	Kønr. 5 af 21. januar 1994, modified by Kønr. 2 af 25. januar 1996	Marine mammals caught by any type of net and still alive should be released if they can survive, otherwise should be euthanised.	
	1998, revised 2005, next update due in 2010!	Handlingsplan for beskyttelse af marsvin [action plan for the Protection of Harbour Porpoises]		http://www.naturstyrelsen.dk/NR/rdonlyres/9996649-49-480F-0009F08925255/6912/Handlingsplan_marsvin.pdf
	2007	Kønr. 01 af 11/07/2007	Protection of species. HP is totally protected	
*Germany	2005	Ordinance on the conservation of species	Amendment of the Federal Ordinance on the conservation of species (Bundesartenschutzverordnung) on the adaptation of further legal provisions. Strict protection of the HP	http://www.bmu.de/files/english/pdf/application/pdf/bartschvo_en.pdf
	2006	National Strategy for Integrated Coastal Zone Management, IZM 2006	Developing and preserving the coastal zone as an ecologically intact and economically prosperous area.	
	2007	Spatial planning for the German North Sea and Baltic Sea MSP		http://www.unesco-ioc-marinesp.be/msp_practice/germany_north_baltic_seas
	2007	National Strategy on Biological Diversity 2007	Halt decline in biodiversity by 2010 species, genetic and habitat diversity. Start national strategy implementing UN 2002. Good ecological and chemical quality in coastal region by 2015. EQ in all waters by 2020. Effective MPAs in 2012. Stock recovery plans for HP within SPO and NS. Promote eco-friendly catch methods. and ecolabelling for fisheries and fishery products.	
	2008	National Strategy for the Sustainable Use and Protection of the Sea National Marine Strategy	Transposing the MFS.	http://www.bmu.de/files/english/pdf/application/pdf/meeresstrategie_en_bf.pdf
	2009?	Renewed German Marine Monitoring Programme	Development of conservation monitoring in W and EEZ	
	2010	New Federal Nature Conservation Act 2010	Nature conservation becomes the responsibility of the Federation. Monitoring biodiversity. Protecting the cultural and natural heritage. Strengthen marine nature conservation. Object of monitoring explicitly identified (incl. obligations arising from). Applicable both to territorial and EEZ waters	Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU)

Netherlands	1998	Flora and Fauna & Nature Conservation Acts	Applying only to 'Whot'. It listed 23 species requiring the strictest protection. However, all Dutch vessels are forbidden to catch and kill it anywhere.	
	2002	Mining Act	No license required for seismic operation. It soft start is required under the art. 2.1.1 of the Mining Regulation but no further measures (Observers, noise reduction) are compulsory.	
	2005	Integrated Management Plan for the North Sea 2015: IMNS 2015 MSP	Achieve integration of all the NS-related conventions and agreements into a management strategy so that the entire spectrum of North Sea policy can be fully realised	http://www.unesco-ioc-marinesp.be/uploads/documentenbank/4cf76ef0978d9e21b00ffa0460eb0221.pdf
	2009	New Water Act	Licenses for offshore wind parks require monitoring and	
	2009		ban on recreational net-nets	http://www.everyoneweb.com/W/ataFilesstaandwant/factsheetstaandwant.pdf
	2011	Conservation Plan for the Harbour Porpoise in the Netherlands: towards a favourable conservation status		http://www.zeeinzicht.nl/docsN2000/NIOZ%20Report%202011-07%20LQ.pdf
Belgium	2001	Arrêté du 21 décembre 2001	a) Strict protection of HP (art 5). b) Obligation of release in case of live-by-catch and of immediate reporting for all by-catches (art 7&8)	
	2001	Flemish legislation, Arrêté du 15 mai 2001	legal protection of porpoises.	
	2003	Spatial Structure Plan for the Belgian part of the North Sea MSP	First MSP implemented, but harbour porpoises are not mentioned.	http://www.unesco-ioc-marinesp.be/uploads/documentenbank/b29ecdecdd3c1025c24b1f6473656633.pdf
France	1999	Arrêté du 9 juillet 1999	Fixer la liste des espèces de vertébrés protégés menacés d'extinction en France et dont faire la répartition excédée le territoire d'un département, incl. HP cited in article 1.	
	2011	Arrêté du 1 juillet 2011 (abrogeant l'arrêté du 7 juillet 1995)	Establish the list of species of marine mammals protected in the French territory and the clauses of their protection. a) Protection of HP & interdiction of destruction, alteration and degradation of reproductive sites and resting areas (art. 2). b) From January 1, 2012, obligation of reporting all by-catch of cetaceans and pinnipeds (art. 3)	
England/UK	2004	Order 2004 No. 3397: South-west Territorial Waters (Prohibition of Pair Trawling) Not included in the law of Scotland or Northern Ireland or apply in Wales.	Prohibiting pair trawling in Territorial Waters area Vlle	http://www.legislation.gov.uk/ukSI/2004/3397/pdfs/uksi_20043397_en.pdf
	2006	Law of April 4, 2006	Creation and management of MPAs	
	2008	Marine and Coastal Access Bill incl. MSP	"Developing a proactive and forward-looking system for marine planning which can provide a holistic approach to managing and protecting the marine environment, address cumulative impacts and reduce uncertainty for developers"	http://www.unesco-ioc-marinesp.be/uploads/documentenbank/0c7c98cf1ba63321c2123136f27d5e.pdf
	2009		MMO get responsibility for implementing and enforcing bylaws (under section 29) and other management measures in current and new Marine Protected Areas.	
	2010	Marine Management Organisation (MMO)	It became responsible for certain marine nature conservation enforcement and management in the UK (incl. issuing and enforcement of the Marine Mammal Mitigation Protocols (MMMPs)).	

Appendix 6. Collation of reported national activities with regard to HP conservation in the North Sea in recent years

(The information in grey was not provided by the contact person, but was collated from other sources)

Action 1: Implementation of the Conservation Plan: Steering Committee and Co-ordinator

Belgium: For the moment, Belgium is not in a position to contribute to funding this coordinator outside the funds already provided through the surplus in the budget.

Denmark: -

France: -

Germany: Germany was the party that had taken the first important step to get the coordinator financed.

Netherlands: -

Sweden: Sweden has not yet compiled the annual National Report of 2011 and refers to reports from earlier years. Attached the 2010 report and the summary of the Swedish Action Plan 2008-2013.

UK: -

Action 2: Implementation of existing regulations on bycatch of cetaceans

Belgium: The national reports to the 812/2004 are attached to the national annual report. Belgium implements 812/2004, but this legislation includes only few concrete measures in its waters. Besides that, discussions on incidental catches in recreational beach fisheries continue between competent authorities and stakeholders.

Denmark: -

France: -

Germany: -

Netherlands: -

Sweden: -

UK: The UK has implemented existing regulations (Habitats Directive, EU Regulation 812/2004) and focused work on two areas: development of measures to minimise cetacean bycatch; and monitoring fisheries to estimate the total mortality of cetaceans in relevant UK fishing operations.

Action 3: Establishment of bycatch observation programmes on small vessels (<15m) and recreational fisheries

Bycatch observation on small vessels is project-based, as it is not an obligation under 812/2004.

Belgium: Contacts with fishermen have been established to have bycaught animals reported, and if technically feasible to bring bycaught animals to port for scientific research purposes: although this remains fairly voluntary, and hardly any control is possible, this action is taken up in legislation (Royal Decree of 17 December 2001).

Denmark: -

France: English Channel & South of North Sea-nets: Observations of vessels working with set nets was planned in western Channel and in eastern Channel and South of North Sea during two years. The observations were done under the project Filmanet (Results published in 2011). All vessels regardless of size were observed. For safety reasons vessels less than 8m are difficult to observe. Since Filmanet is finished, regular observations are planned for set nets in the South of North Sea as this area is considered as an area of issues for interaction with fisheries.

Since the end of 2011, a new programme named NPEMOM has been launched on the monitoring of the by-catch and the depredation in the roiseau (Western Brittany). The targeted fishery is mainly the monkfish set net fishery. This study result of a collaboration between the roiseau MP, the Fisheries representatives, the University of Brest, the National Museum of Natural History and Oceanopolis.

2 Pelagic vessels < 15 meters are regularly observed in the channel under the regulation 812/2004.

2 2 Synthesis of knowledge on by-catch in French areas was done under the MSF for the initial status of seas.

2 2 For recreational fisheries, interviews of population were made at a national level in order to identify and qualify this fishing pressure. Studies have to be done in order to identify the length of nets in the sea and be estimated from these interviews.

2 **Germany:** 2 2 -2

2 **Netherlands:** 2 2 -2

2 **Sweden:** 2 2 -2

2 **UK:** 2 2 Funding has awarded to extend the pinger trial to include a further five over 12m boats in 2010. This will provide more data with which to test the efficiency of these devices in minimising bycatch. It will also assist in identifying and resolving operational issues.

2

2 **ction 4:** 2 **Regular evaluation of all fisheries with respect to extent of porpoise bycatch**

2

2 **Belgium:** 2 2 Through voluntary reporting of bycatches, and through an analysis of the cause of death of stranded small cetaceans, efforts are made to evaluate bycatch in harbour porpoises and other marine mammals in Belgian waters (see national reports).

2 **Denmark:** 2 2 -2

2 **France:** 2 2 See under cction 3

2 **Germany:** 2 2 -2

2 **Netherlands:** 2 2 -2

2 **Sweden:** 2 2 -2

2 **UK:** 2 2 Since January 2010, the UK has devoted more of our monitoring resources into studying gear types and areas of greatest need. Work is currently focused on investigating the static net fisheries in both the North Sea and the South West. To allow us to make these changes, we have reduced monitoring levels in some pelagic raw fisheries that were consistently showing zero bycatch (and so focussing on all relevant fisheries). Full details of this monitoring are in the attached 2010 report to the European Commission.

2

2 **ction 5:** 2 **Review of current pingers, development of alternative pingers and gear modifications**

2

2 **Belgium:** 2 2 The current setnet fishing fleet consists of only 3 to 5 vessels (operational full- or part-time). This does not warrant extensive research actions in this field. Although the use of pingers has been discussed with fishermen, if suitable pingers would be available, use of pingers would become mandatory in Belgian waters for certain fisheries, this subject would be re-opened for discussion.

2 **Denmark:** 2 2 -2

France: 2 No specific actions are taken by France on this item 25 at this time. 2 2 2 s pingers were tested in the eastern channel & North Sea. 2 2 2 ut no by-catch was observed in the equipped nets and in the non-equipped nets. 2 The by-catch rate is probably too low to bring significant biological results. 2 2 2 very new pingers arriving on the market will be tested.

2 **Germany:** 2 2 -2

2 **Netherlands:** 2 2 -2

2 **Sweden:** 2 2 -2

2 **UK:** 2 2 The use of acoustic deterrent devices as specified under Council Regulation 812/2004 has been problematic for the UK but we are committed to resolving these problems. The UK has applied for derogation under Article 36 of Regulation 812/2004 in order to trial an alternative pinger device with different specifications.

2 2 2 Much of our research has, and will continue to focus on the Harbour Porpoise. Initial evidence has been very encouraging, with the devices proving safe to use and significantly reducing harbour porpoise bycatch. 2 2 2 See reports attached under cctions 3 and 4.

2

2 **ction 6:** 2 **Finalise a management procedure approach for determining maximum allowable bycatch limit in the region**

2

Belgium: The range of the harbour porpoise population in the North Sea is far greater than Belgian waters, this should be discussed at an international level. However, the maximum bycatch level has been proposed as 1.7% of the population present in Belgian waters in the framework of the conservation objectives for protected species and habitats consistent with W and SO NS proposals. This level will also be discussed in the international implementation of the MSF. It will take account of the seasonal occurrence of the harbour porpoise in Belgian waters, and with recreational and professional fisheries.

Denmark: -

France: -

Germany: -

Netherlands: -

Sweden: -

UK: Work to finalise a management procedure for determining maximum allowable anthropogenic removals for harbour porpoise is ongoing. It has been recognised by regulators, statutory nature conservation advisors and scientific experts that additional work will be required in order to establish a management procedure approach for cetaceans in general. In particular, we would need:

- Improved cetacean abundance and distribution data including trend data;
- Some sort of estimate of population size at carrying capacity;
- Refined approaches for predicting population level effects; and
- Define acceptable limits of disturbance.

Work on this topic is currently driven by the uncertainties surrounding the risks of population level effects on European Protected Species (EPS) from offshore windfarm proposals. When advising on licence applications, regulators and the statutory nature conservation agencies will need to articulate what we believe is injuring and/or disturbing EPS will mean for their favourable conservation status (FCS), i.e. we need to assess what number of individuals could be removed from the population through injury or disturbance without compromising its FCS.

In order to inform the consenting process for offshore wind farms, the statutory nature conservation advisors have submitted a document of relevant consenting authorities which contains our recommendations on what we think is required in order to effectively detect and manage cumulative impacts from offshore wind farms on marine mammal populations, particularly harbour porpoise. This includes the identification of suitable approaches to tackle key knowledge gaps including approaches for predicting population level effects and defining acceptable limits for disturbance. Currently, we are waiting for the regulator's responses to the recommendations.

ction 7: Monitoring trends in distribution and abundance of harbour porpoises in the region

Belgium: Regular monitoring is performed of the presence and distribution of harbour porpoises, amongst others in the framework of the evaluation of the effects of the construction and operation of offshore wind farms. Techniques used are aerial surveys (distance sampling) and passive acoustic monitoring (P-PoS) (see monitoring reports of offshore wind farms available upon request).

Denmark: Partial funding of the Hoggerbank Survey through NST (See below under Germany).

Svegaard (2011) and Svegaard et al. (2011) have used passive acoustic detectors for examining the distribution and abundance of porpoises in inner Danish waters. The data from the acoustic studies are in good agreement with the results from earlier sightings surveys in the same areas and confirm that there are areas with higher and lower concentrations of porpoises. The concentrations of porpoises both move and change according to season.

Shipboard sighting survey is planned for the summer 2012 mainly for covering the GPRP area with regards to the GapP area plan, but which likely also cover the Skagerrak area.

France: Inside the French project Fil Mancet, sightings were regularly done by the NGO OPM in the fishing area of south North Sea & eastern Channel in order to improve the knowledge on geographical and seasonal distribution of porpoises in that area. This was done during two years. 146 porpoises were observed and 843 km of transects were achieved for

sightings. Densities are higher in winter than in summer. The geographical distribution is more coastal in summer. The interaction with setnet fisheries is probably highly in spring.

The campaigns under the Program for the acquisition of knowledge on seabirds and Marine Mammals from the French MP agency will cover, at the least, the entire exclusive economic zone and French mainland ecological protection areas by the means of passages during a two-year period and will be divided into several layers including a coastal layer encompassing the majority of the Natura 2000 sites. Starting in summer 2011, finishing in winter 2012-2013.

Germany: An aerial survey was conducted in the Hoggertank survey (Gilles et al. 2011ab). The survey was mainly funded by the German Federal Agency for Nature Conservation (BfN). Some additional costs (only charter) were funded by Denmark (NST), UK (JNCC) and the Netherlands (Wageningen M&RIS), which permitted enlarging the survey area. The final (German) monitoring report including the survey in the Hoggertank as well as other surveys conducted in German/Danish waters will soon be available online.

Netherlands: Partial funding of the Hoggertank survey through Wageningen M&RIS (See above under Germany)

Amphysen (2011) has combined the distribution of porpoises in Holland from 1990 to 2010, from report of ornithologists. After a dramatic increase up to 2006, the numbers have been very variable. It is difficult to determine whether this situation is due to an actual decrease or whether it is due to the way the observations were carried out.

Sweden:

UK: Partial funding of the Hoggertank survey through NST. See above under Germany

Evans (2010) carried out trend analyses of strandings and other data (incidental sightings, bycatch...) on small cetaceans in the S ONS area, including the harbour porpoise. The ultimate aim was to provide on an annual basis accessible, readable and succinct overview of trends in status, distribution and impacts of small cetaceans within the S ONS agreement area, combining data sets of different stakeholders and countries.

The NNS leading collaborative project, the Joint Cetacean Protocol (JCP), which will deliver information on the distribution, abundance and population trends of cetacean species occurring in NW European waters.

A variety of academic institutions and NGOs also undertake work on abundance and distribution of cetaceans in UK waters. These include:

- University of Aberdeen Lighthouse Field Station conduct boat-based photo-ID surveys in northeast Scotland for bottlenose dolphins as well as land-based visual and acoustic surveys of behaviour and distribution of bottlenose dolphin and harbour porpoises in the Moray Firth.
- The Cetacean Research and Rescue Unit conducting systematic line-transect surveys along 2km stretch of coastline in the southern Moray Firth, carried out annually between May and October, aimed mainly at minke whales but recording all cetaceans.

Others: IFW conducted two ship surveys in 2011, both were combined acoustic and visual surveys.

The first one was conducted in May-June in French and British waters of the English Channel Marine Conservation Research International, 2011). The distribution of harbour porpoises in the English Channel appears to be linked to depth, with the majority of encounters occurring in depths of 50-100 metres. In addition, most of the harbour porpoise encounters occurred in the western area of the English Channel, away from the major shipping lanes and shallow uniform topography of the eastern channel.

The other one was conducted in November (2019_5-03) to investigate the presence and distribution of harbour porpoises over the Hoggertank and adjacent waters in the southern North Sea in UK, Dutch, Danish and German waters. Analysis of the data is underway. The survey was supported by S ONS, Wageningen M&RIS and WWF UK, and in coordination with German and Belgian groups.

Review of the Stock Structure of Harbour Porpoises in the Region

Belgium: All washed ashore harbour porpoises are depending on their condition subjected to a thorough necropsy which includes sexing and an assessment of their age (newborn)

juvenile-adult). Teeth are extracted for more detailed ageing. In the field, mother-calf pairs observed during aerial surveys are noted down.

Denmark: -

France:

Field surveys have reported a global shift in harbour porpoise distribution in European waters during the last 15 years, including a come-back along the coasts of France. In a study in progress, the University of Forest and Oceanopolis analyzed the genetic polymorphisms at a fragment of the mitochondrial control region (mtN2/R) and at 7 nuclear microsatellite loci for 2 animals stranded and by-caught between 2000 and 2010 along the Atlantic French coasts. The analysis of nuclear and mitochondrial genomes led to contrasting results. The mtN2 revealed two genetically distinct groups, one closely related to the Iberian and African harbour porpoises, and the second group related to individuals from the more northern waters of Europe. In contrast, nuclear polymorphisms did not retrieve such group distinction. Nuclear markers suggested that harbour porpoises behaved as a random mating unit along the Atlantic coasts of France. The difference between the two kinds of markers can probably be explained by the difference in their heritability, the mtN2 being maternally inherited in contrast to nuclear loci that are bi-parentally inherited. The results provide evidence that a major proportion of the animals sampled are admixed individuals from the two genetically distinct populations previously identified along the Iberian coasts and in the North East Atlantic. The French Atlantic coasts are clearly the place where these two previously separated populations of harbour porpoises are now meeting. It's strongly suspected that the present shifts in distribution of harbour porpoises around French coasts may be caused by habitat changes that will need to be further studied.

Germany: -

Netherlands: -

Sweden: -

UK: -

Collection of incidental porpoise catch data through stranding networks

Belgium: This is fully implemented and funded by the RINS: all stranded animals are subjected to a necropsy, with a view to the identification of the cause of mortality.

Denmark:

140 strandings of porpoises were reported in 2010 (Jensen 2011), including 14 females, 30 males and 6 of unknown sex. The number of stranded porpoises is very similar to the number reported in 2009, and it is therefore believed that the very high numbers reported in 2008 were a one-time phenomenon.

France:

- RN (national stranding network) and project INP/M/M

Germany: -

Netherlands: -

Sweden: -

UK:

UK Government funds the UK's Cetacean Stranding Investigation Programme (CSIP). CSIP holds data on over 10000 cetaceans which were found stranded around the UK between 1990 and 2010. In addition, detailed pathological data is also held on over 2900 UK stranded cetaceans which were necropsied by CSIP during the same period. Data collected on strandings and during necropsies is now available to all on the IN gateway. The 2011 report is available at: <http://ukstrandings.org/csip-reports/>

Investigation of the health, nutritional status and diet of harbour porpoises in the region

Belgium:

This is fully implemented in the work undertaken by the Strandings Network (e.g. Dauniaux et al. 2011). During 2010-2011 and 2011-2012 a project on the diet of washed shore porpoises (based on stomach contents) was/is being funded by the Federal Public Service for Health, Food Chain Safety and Environment (G5-M Marine Environment), with specific reference to the NSO/NS North Sea Harbour Porpoise Conservation Plan (initial report available upon request).

Denmark: Study conducted (e.g. Galatius et al. 2011)

France: -RN (Réseau National 'échouage'). Projet INP (M)

Germany: -

Netherlands: -

Sweden: -

UK: The SIP carries out necropsies on a sample of stranded cetaceans each year, this includes harbour porpoises. The necropsies give indications of the health, nutritional status and diet of harbour porpoises in the region.

Additional research, some through direct funding from the UK Government, and some via SONS has been made available for a number of other projects looking at the health of harbour porpoises and other cetaceans in UK waters. These include: 'Effects of Contaminants on Reproduction in Small Cetaceans', a phased project to investigate the effects of contaminants on the reproductive output in males and females (St. Andrews University).

Additional summary information on actions and 10 is also available in 'Charting Progress', a comprehensive report on the state of the UK Seas: <http://chartingprogress.defra.gov.uk/cetaceans>

Action 1: Investigation of the effects of anthropogenic sounds on harbour porpoises

Belgium: The physical aspects of noise caused by the construction of offshore wind farms, as well as the possible effects on harbour porpoises are monitored. For the moment, no other human activities causing excessive underwater noise are monitored, although the Federal Public Service for Health, Food Chain Safety and Environment (G5-Marine Environment) funded a project in which the effects of military activities, including the detonation of ammunition at sea, were assessed (project report in preparation - available during 2012).

Denmark: Studies conducted (e.g. Brandt et al. 2011)

France: -

Germany: -

Netherlands: Studies conducted (e.g. Scheidat et al. 2011, Kastelein et al. 2011abc).

Sweden: -

UK: Following SONS request for Parties to introduce mitigation measures with respect to seismic surveys, the UK has presented data on 2008 and 2009 seismic survey activity in the UK maritime area for periods since 1997 to a number of SONS advisory committees and Meetings of the Parties over the past five years. The most recent update from the Department for Energy and Climate Change (2012) is in the 'Information on Seismic Survey Activities by the United Kingdom 2008-2009' report. This report is available on request. The recently prepared report, jointly with the University of Aberdeen and Lighthouse Field Station, to provide the results of acoustic propagation modelling and prediction of underwater noise from seismic survey operations proposed for the Moray Firth region during 2010 and/or 2011. The report summarises operational and site specific data for the region based on the modelling of underwater noise propagating through the middle of the survey region. Additional modelling has also been undertaken to investigate the underwater noise propagating into shallower coastal waters inhabited by the bottlenose dolphin and porpoise. <http://og.decc.gov.uk/assets/og/environment/mf-results2.pdf>

Defra and the UK Ministry of Defence (MoD) have set up a Military Underwater Sound Stakeholder Forum. This gives the opportunity for industry, non-government organizations and other interested stakeholders to engage directly with government to raise their concerns. Most recently, these discussions have helped lead to the development of a real-time alert procedure for naval training operations. This enables local information on unusual cetacean sightings, e.g. the presence of a species group closer to shore than usual, to be incorporated into the training schedule and for operations to be relocated if necessary.

- Kastelein, R., L. Hoek, T. De Jong 2011a. Hearing thresholds of harbor porpoise (*Phocoena phocoena*) for sweeps (1-2 kHz and 6-7 kHz bands) mimicking naval sonar signals. *Journal of the Acoustical Society of America* 129(5): 3393-3399.
- Kastelein, R., L. Hoek, T. De Jong 2011b. Hearing thresholds of harbour porpoise (*Phocoena phocoena*) for helicopter dipping sonar signals (1.431.33 kHz) (L). *Journal of the Acoustical Society of America* 129(5): 679-682.
- Kastelein, R., L. Hoek, T. De Jong 2011c. Effect of broadband-noise masking on the behavioural response of harbour porpoise (*Phocoena phocoena*) to 1-s duration 6-7 kHz sonar up-sweeps. *Journal of the Acoustical Society of America* 129(4): 2307-2315.
- Marine Conservation Research International. 2011. Final Report of Survey for Harbour Porpoises conducted from R/V Song of the Whale in French and British waters of the English Channel, May to June 2011. 23pp.
- Scheidat, M., J. Tougaard, S. Rasseur, M. Marstensen, T. Van Polanen, P. Petel, J. Teilmann, P. Reijnders 2011. Harbour porpoises (*Phocoena phocoena*) and wind farms: a case study in the Dutch North Sea. *Environmental Research Letters* 6: 025102.
- Sveegaard, S. 2011. Spatial and temporal distribution of harbour porpoises in relation to their prey. Ph.D. afhandling, Aarhus Universitet.
- Svegaard, S., J. Teilmann, P. Merggren, K.M. Mouritsen, T. Gillespie, J. Tougaard 2011. Acoustic surveys confirm the high density areas of harbour porpoises found by satellite tracking. *ICES Journal of Marine Science* 68(5): 929-936.

Appendix 7. Minimum number of harbour porpoises by-caught annually in the North Sea, calculated from the proportion of stranded animals diagnosed by-caught.

"Reported stranded" include porpoises found dead at sea, but not by-caught porpoises delivered by fishers which are reported separately. Numbers do not include porpoises found dead at sea

NS Harbour porpoise		SE	DK	DE	NL	BE*	FR	UK
v. nbr. stranded/yr				117	496	74	85	
v. minimum by-caught/yr					305	30	29	
2007	Strandings			148	345	86	110	
	Necropsied					75	7	
	cause of death assessed					43	7	
	diagnosed by-caught (%)					14	4	
	% within sample					0.33	0.57	
	delivered by fishers						3	
	annual minimum						28	66
2008	Strandings			107	344	61	86	
	Necropsied					51	26	
	cause of death assessed					31	26	
	diagnosed by-caught (%)					13	11	
	% within sample					0.42	0.42	
	delivered by fishers						3	
	annual minimum						26	39
2009	Strandings			159	507	59	93	
	Necropsied				97	49	30	
	cause of death assessed				79	12	30	
	diagnosed by-caught (%)				39	7	10	
	% within sample				0.49	0.58	0.33	
	delivered by fishers						4	
	annual minimum				250	34	0	
2010	Strandings			59	432	49	93	
	Necropsied				100	42	30	
	cause of death assessed				89	16	30	
	diagnosed by-caught (%)				24	5	10	
	% within sample				0.27	0.31	0.33	
	delivered by fishers						1	
	annual minimum				116	15	31	
2011	Strandings			113	850	116	43	
	Necropsied				175	82	20	
	cause of death assessed				73	39	20	
	diagnosed by-caught (%)				47	14	3	
	% within sample				0.64	0.36	0.15	
	delivered by fishers					5	0	
	annual minimum				547	47	6	