Fisheries Emergency Measures for the Baltic Sea harbour porpoise

July 2019

1. Summary

The Baltic Sea harbour porpoise is listed by IUCN and HELCOM as critically endangered. Today its geographical range is significantly smaller than what can be induced from historical records, and there are only a few hundred animals left. While pollution and disturbance through underwater noise may be contributing to the population failing to recover, bycatch is the one acute threat causing direct mortalities in significant numbers. Given the small size of the population, the sex ratio and age distribution and the proportion of females potentially infertile due to high contaminant load, there may be less than 100 fertile females in the Baltic Proper. Losing even one of those females could have a devastating effect on the ability of the population to recover or even stay stable at the low numbers of today.

Hence, to allow this critically endangered population to recover, bycatch must be reduced to an absolute minimum, ideally to zero. However, to date initiatives from Member States to minimize bycatch are very limited and there are currently no closures of areas for the purpose of protecting the Baltic Sea harbour porpoise. While Sweden has designated as Natura 2000 the main part of the porpoise breeding area in the central Baltic Proper in December 2017, the long and slow process for Member States to agree on joint measures for nature conservation purposes under the Common Fisheries Policy (CFP) is currently risking the survival of the population.

Therefore, we, a group of European NGOs, hereby request that the European Commission take the necessary emergency measures to 1) completely close all fisheries on the Northern Midsea Bank within the Swedish Natura 2000 area “Hoburgs bank och Midsjöbankarna”, 2) close all gillnet fisheries in the rest of the Swedish Natura 2000 area “Hoburgs bank och Midsjöbankarna” and in all Natura 2000 areas east of 13.5°E where the harbour porpoise is listed as present, based on Article 11(4) of the CFP, until site-specific assessments has been made of the impact of use of Acoustic Deterrent Devices (ADDs), as well as, 3) require mandatory use of ADDs outside of Natura 2000 areas in the entire range of the Baltic Proper harbour porpoise population, i.e east of 13.5°E, 4) require accurate data collection, monitoring and reporting in the whole Baltic Sea and 5) require monitoring and mitigation measures for gillnet fisheries, based on Article 12 of the CFP.

Such emergency measures would be put in place to ensure that bycatch is minimised until permanent and adequate measures are in place. If immediate action is not taken, we risk a situation where the population is further depleted, and fisheries have to be closed throughout the Baltic Sea.

2. The problem

Marine mammals have a significant effect on the ecosystems, both through their prey consumption and through other, behavior-driven roles (ICCB, 2017; Kiszka et al., 2015). In the Baltic Sea, the harbour porpoise is the only cetacean present year-round and in any significant numbers, and hence has a unique role in the Baltic Sea ecosystem.

The harbour porpoise, *Phocoena phocoena*, is a small cetacean present in shelf, and sometimes open high seas waters in most of the Northeast Atlantic. In the Baltic Sea Region, three distinct harbour porpoise populations are recognized: one in northern Kattegat, Skagerrak and the North Sea, one in southern Kattegat, Belt Sea and western Baltic, the so-called Belt Sea population, and one in the Baltic Proper (Fig. 1).

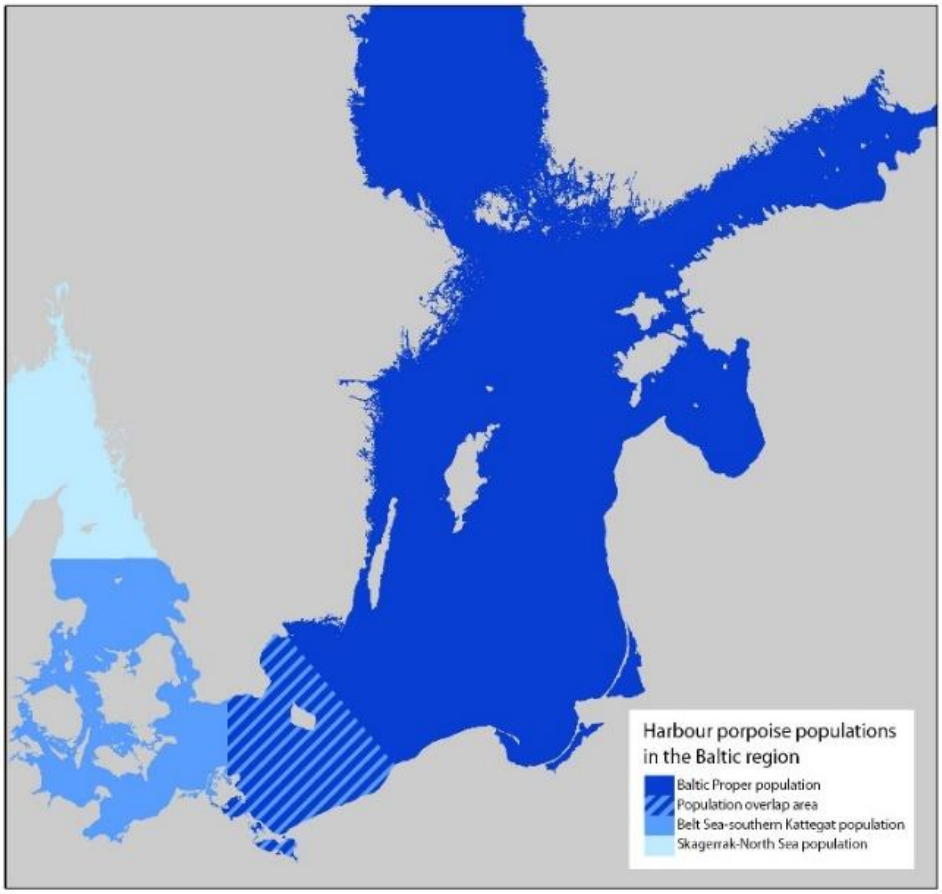


Figure 1. Approximate distribution of the different harbour porpoise populations in the Baltic Sea Region. The overlap area between 13.5°E and the diagonal line between Sweden and Poland is thought to host some animals from the Belt Sea population during summer (May-October) and from the Baltic Proper population during the winter (November-April) (Carlén et al., 2018; Sveegaard et al., 2015)

The Baltic Proper harbour porpoise population exhibits small but consistent differences compared to the Belt Sea population in genetics (Lah et al., 2016; Wiemann et al., 2010) as well as morphology (Galatius et al., 2012), and is spatially separated from it during the time of breeding in the summer months (Carlén et al., 2018; Sveegaard et al., 2015, Fig. 2 and 3). Hence, it is considered to be a separate population.

While historically the distribution of porpoises seems to have encompassed the entire Baltic Sea from the Bay of Bothnia in the north and Gulf of Finland in the east, today the main distribution occurs in the central Baltic Proper, with animals occurring as far north as the Finnish Archipelago Sea during winter (Fig. 2). The numbers are precariously low, with only a few hundred animals left (497, 95% ci 80-1091, Amundin, Carlström, Thomas et al, in prep., SAMBAH 2016). Hence, the Baltic Proper population of harbour porpoises are listed as *Critically Endangered* by IUCN (Hammond et al., 2016) and HELCOM, meaning that this population is facing extinction.

An important breeding area for the population was identified by the SAMBAH project to be situated in the central Baltic Proper (Fig. 2 and 3).

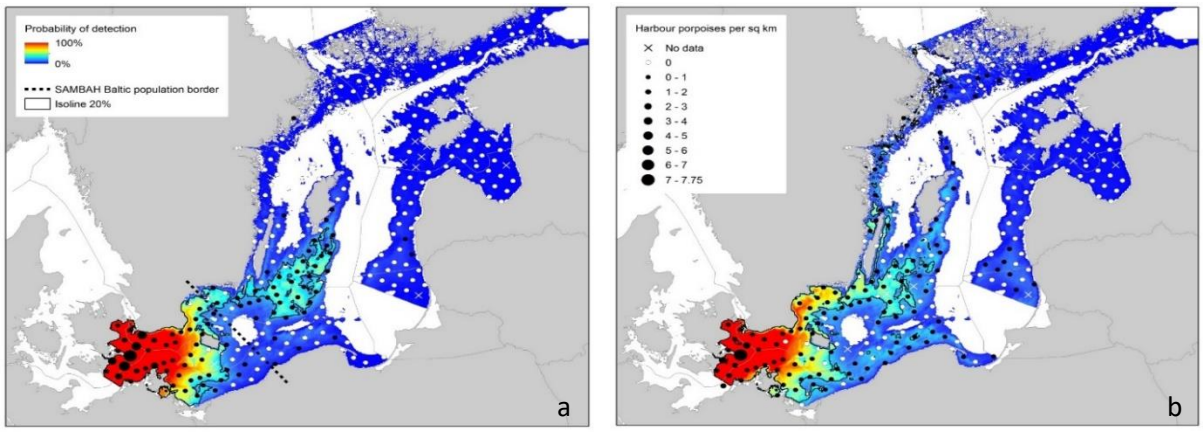


Figure 2. Probability of detection (colours) and density (black dots) of harbour porpoises in the SAMBAH study area in the Baltic Sea during a) May-October and b) November-April. In the map showing the distribution from May-October, the cluster in the southwest is interpreted as the Belt Sea population, and the cluster south of the island of Gotland is interpreted as the Baltic Proper population. The dotted line from Sweden to Poland denotes the estimated division between the Baltic Proper Population and the Belt Sea population during May-October.

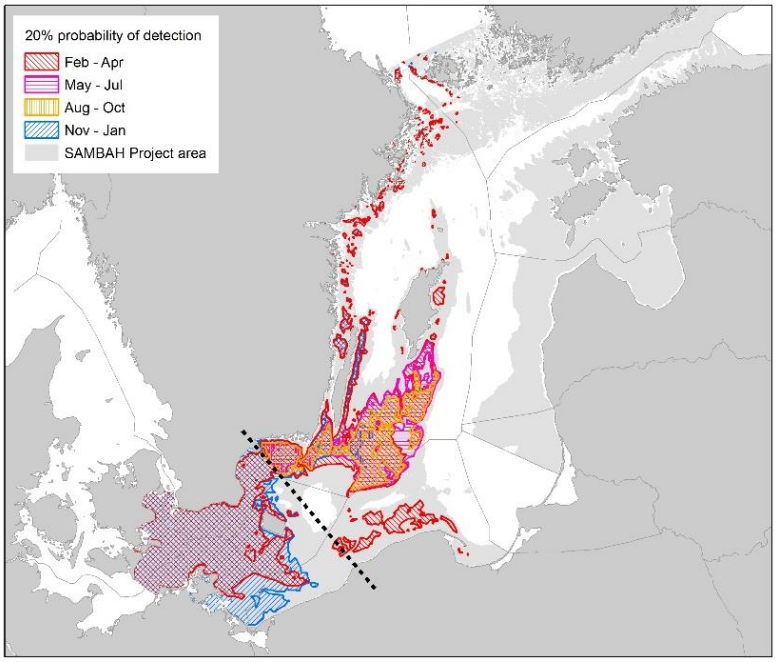


Figure 3. Polygones showing the ≥20% probability of detection of porpoises for four quarters of the year. During May – October (areas in pink and yellow), this area of ≥20% probability of detection is estimated to encompass approximately 30% of the Baltic Proper harbour porpoise population during the reproductive season. This map can therefore be interpreted as showing the most important areas for the Baltic Proper harbour porpoise population.

2.1 Threats

The causes of the Baltic proper population decline since the 1960's are mainly bycatch in fishing gear and environmental contaminants, although hunting and heavy ice cover during winters in the first half of the 20th century may have contributed. Nylon gillnets were introduced in the 1960's, and this is believed to have increased the bycatch of harbour porpoises, both because the fishing effort increased with this new, affordable and easy-to-handle gear, and because the thin nylon strands of the nets seem to be more difficult for the porpoise to detect under water through echolocation. The 1960's and 70's also saw a severe increase of environmental contaminants such as PCB in biota from almost all taxa. PCBs have been shown to cause reproductive impairment in female harbour porpoises in UK waters (Murphy et al., 2015), and given that the levels of PCBs have been shown to be up to 35 times higher in the Baltic Sea than in the North Sea (Karl and Ruoff, 2007), it is likely that this has significantly affected the Baltic proper population, too.

Today, the main threats to the Baltic Proper harbour porpoise population are bycatch in fishing gear, environmental contaminants and underwater noise. While pollution and disturbance through underwater noise may be contributing to the population failing to recover, bycatch is the one acute threat causing direct mortalities in significant numbers. Given the small size of the population, the sex ratio and age distribution and the proportion of females potentially infertile due to high contaminant load, there may be less than 100 fertile females in the Baltic Proper. Losing even one of those females could have a devastating effect on the ability of the population to recover or even stay stable at the low numbers of today. Additionally, from the German part of the Baltic Sea it has been shown that only approximately 27% of females reach reproductive age (Kesselring et al., 2018, 2017). If this is true for the entire Baltic Proper population, it would indeed be very worrying.

Bycatch

To allow this critically endangered population to recover, bycatch must be reduced to an absolute minimum, ideally to zero. This is also the main message in the ASCOBANS Recovery Plan for Baltic Harbour Porpoises (Jastarnia Plan) and the HELCOM Recommendation 17/2 on the Protection of harbour porpoise in the Baltic Sea Area. At a recent NAMMCO workshop, a Potential Biological Removal (PBR) analyses showed that the bycatch limit for the Baltic Sea harbour porpoise is 0.1 animals per year (North Atlantic Marine Mammal Commission and the Norwegian Institute of Marine Research, 2019). However, to date, initiatives from Member States to minimize bycatch are very limited. Although there are some recent local initiatives in the German Baltic Sea and in some marine protected areas (MPAs) in Poland to use different types of acoustic deterrent devices (ADDs, or "pingers") to decrease bycatch, the spatial extent of these measures is not nearly enough, and there are currently no closures of areas for the purpose of protecting the Baltic Sea harbour porpoise.

The Baltic Sea harbour porpoise is susceptible to bycatch in different types of gillnet fisheries, mainly surface set nets for salmonids as well as bottom set nets for cod and flatfish. Driftnets formerly used for salmonids had significant harbour porpoise bycatch. These nets were banned in 2008 by EC regulation 812/2004, but a form of semi-drift nets (also known as swing nets) are still used, and there is concern that these are still causing significant bycatch of harbour porpoises, e.g. in Polish waters (see Fig. 4 for total number of bycatches and strandings in Poland during the last decades). There is also significant bycatch occurring in German Baltic waters, but it is very likely that the large majority of these animals belong to the Belt Sea population rather than the Baltic Proper population.

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
str	1	2	2	4	5	1	2	5	2	1	4	5	3	5	9	14
byc	7	1	1	0	0	0	2	0	0	0	0	1	0	0	0	1

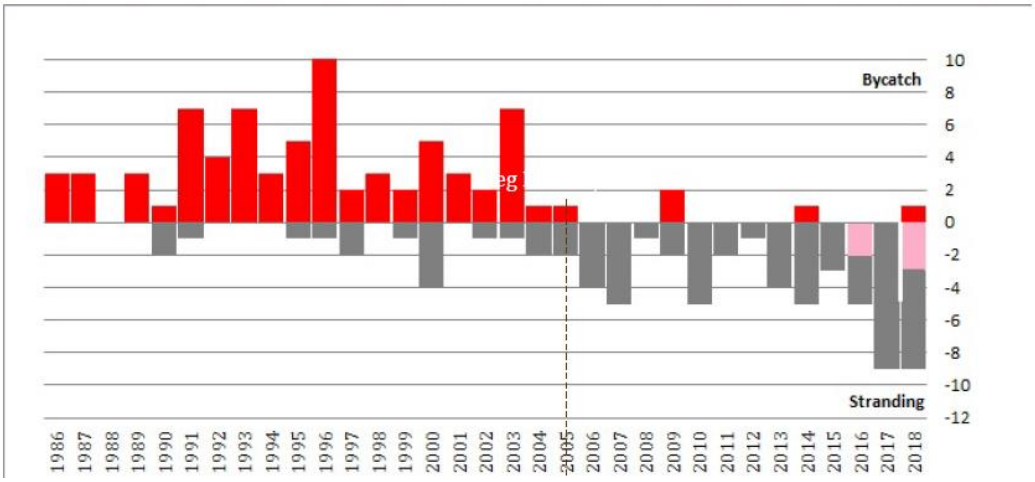


Figure 4. Reported bycatch and strandings in Poland from 1986 to 2018. When regulation 812/2004 came into effect, reported bycatch decreased drastically but strandings increased. This raises serious concern that bycatch in Polish waters is still significant.

Overall, there is basically no data on actual bycatch rates from the Baltic Sea. Monitoring programmes put in place by Member States for EC Regulation 812/2004 did not record any bycatch in the Baltic Proper population distribution range. This is at least partly due to the fact that the regulation demands monitoring of vessels >15 m, with the large majority of vessels using gillnets in the Baltic Sea region being smaller than that, but also the chances of observing bycatch in such a small population is very small. In Poland it has been calculated that 80% of the fishing effort would have to be monitored to achieve the goal set up in Annex III of EC regulation 812/2004 that monitoring schemes shall be designed to allow estimation of bycatch rates with a coefficient of variation not exceeding 0.30 for the most frequently bycaught species. The only known *reported* bycatch which can be interpreted as stemming from the Baltic Proper population since 2009 (according to the HELCOM/ASCOBANS harbour porpoise database) was one individual caught in Poland during 2014, and one in 2018. There is also a significant number of strandings along the Polish coast, with 14 animals found on Polish beaches only in 2018. For most of these animals the cause of death could not be determined, but it is likely that at least part of the stranded animals was bycaught. Additionally, a harbour porpoise was caught in a Finnish salmon net in the Archipelago Sea in December 2018, but could be released alive. This is the first recorded bycatch in Finland since 1999.

This shows that bycatch does occur, even as far north as Finnish waters, and given the low monitoring effort there is likely to be undetected bycatch throughout the population range. ICES WGBYC (ICES, 2018) concluded that several gear types, including set gillnets, are under-sampled in the Baltic Sea, in relation to Regulation 812/2004.

2.2 Natura 2000 sites for the Baltic Sea harbour porpoise

The main part of the important breeding area in the central Baltic Proper (Fig. 2 and 3) is situated in Swedish waters and was designated as an SCI for the Baltic Sea harbour porpoise in December 2017 (SE0330308, Fig. 4, Table 1). However, to date, there is no management plan, no conservation measures and no conservation objectives in place, and no process on joint measures

under CFP art 11.2. Without immediate measures in this crucial breeding area, there is great risk that the population is further depleted both in numbers and genetic diversity.

In addition, there are 12 Natura 2000 areas (SCIs) which are at least partly within the distribution range of the Baltic Proper harbour porpoise population east of 13.5°E, in Swedish, Polish and German waters, where the harbour porpoise has been listed as present (table 1). Many of these areas were designated as SCIs well over six years ago, but have not yet been designated as SACs. No measures have been implemented for the purpose of harbour porpoise conservation. Management plans are available for five of the German sites, but not for any of the Polish and Swedish sites. No other Baltic Sea coastal states have Natura 2000 sites where the harbour porpoise is listed as present.

Table 1. Natura 2000 sites within the distribution range of the Baltic Proper harbour porpoise population (east of 13.5°E), with the harbour porpoise in the list of species present.

Site code	Site name	Designation as SCI	Designation as SAC	Size marine area (ha)	Harbour porpoise listed as
SE0330308	Hoburgs bank och midsjöbankarna	2017-12	Not designated	1051111	Permanent, common
SE0430187	Sydvästskånes utsjövatten	2017-12	Not designated	115127.6	Permanent, rare
PLH220023	Ostoja Słowińska	2008-02	Not designated	11613	Concentration, present
PLH220032	Zatoka Pucka i Półwysep Helski	2008-02	Not designated	26566	Concentration, common
PLH320019	Wolin i Uznam	2008-02	Not designated	5499	Concentration, present
PLH990002	Ostoja na Zatoce Pomorskiej	2009-03	Not designated	243059	Permanent, present
DE1251301	Adlergrund	2007-11	Not designated	23397	Permanent
DE1249301	Westliche Rönnebank	2007-11	Not designated	8601	Permanent
DE1652301	Pommersche Bucht mit Oderbank	2007-11	Not designated	110115	Permanent
DE1749302	Greifswalder Boddenrandschwelle und Teile der Pommerschen Bucht	2009-12	2016-08	39872	Concentration, present
DE1747301	Greifswalder Bodden, Teile des Strelasundes und Nordspitze Usedom	2004-12	2016-08		Concentration
DE1346301	Steilküste und Blockgründe Wittow	2004-12	2016-08	1631.9688	Permanent, present
DE1345301	Erweiterung Libben, Steilküste und Blockgründe Wittow und Arkona	2009-12	2016-08	7570.213	Concentration

Hence, in none of the Natura 2000 areas have steps been taken to avoid disturbance, or even accidental killing, of the harbour porpoise, as stipulated by Art 6(2) of the Habitats Directive, resulting in direct breach of this article.

According to the Habitats Directive, a management plan should be in place at most 6 years after designating an area as an SCI. Given the critically endangered status of the Baltic Sea harbour porpoise and the fact that site SE0330308 encompasses its most important breeding ground, waiting another 3.5 years before putting in place the necessary conservation measures could seriously endanger further this population and risking its very survival. Therefore, putting the necessary

conservation measures and appropriate management plans in place for this SCI according to Art 6(1) of the Habitats Directive should be of highest priority. For the areas in Poland and Germany, the implementation of management plans and conservation measures is already very much behind schedule and should be carried out immediately.

3. Emergency Measures

3.1 Proposed measures

To minimize the impact of bycatch on the Baltic Sea harbour porpoise, we propose two levels of emergency measures:

1) Measures within Natura 2000 areas in Sweden, Poland and Germany, with reference to Article 11(4) of the CFP and Article 6 of the Habitats directive (see section III). Swedish, Polish and German waters are considered key areas for the Baltic Proper harbour porpoise population, and are also high-risk areas for harbour porpoise bycatch.
2) Measures outside Natura 2000 sites, with reference to Article 12 of the Habitats directive, as well as Article 12 of the CFP (see section III). The Baltic Proper harbour porpoise population is highly vulnerable, and bycatch risk has to be minimized throughout its entire range.

The proposed measures are described below.

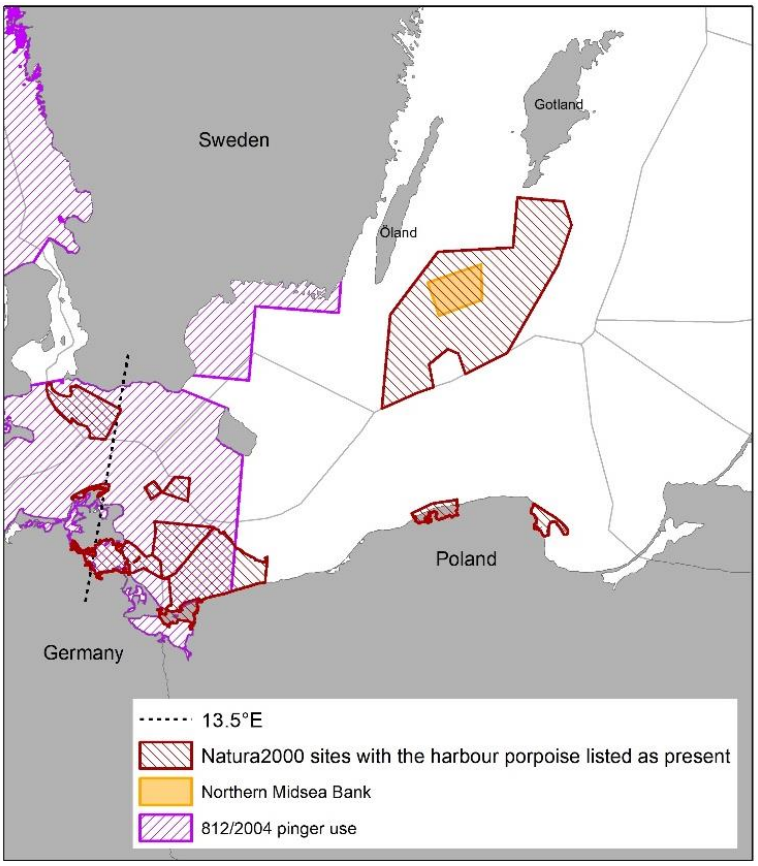


Figure 5. The areas where use of ADDs is mandatory according to Regulation 812/2004, in relation to the Natura 2000 areas with the harbour porpoise listed as present within the range of the Baltic Proper population (east of 13.5°E), as well as the Northern Midsea bank which is proposed for total fisheries closure.

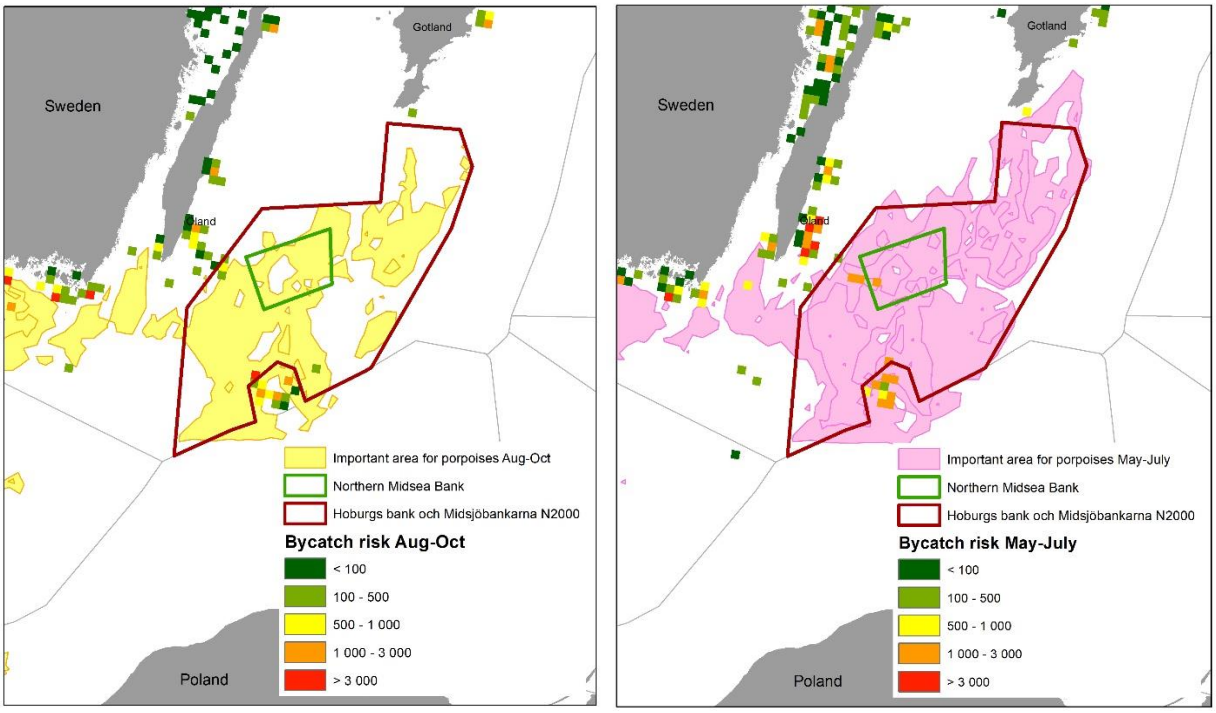


Figure 6. Bycatch risk in Swedish waters for a) May-July and b) August-October, based on fishing effort and probability of detection of harbour porpoises from the SAMBAH project.

3.1.1 Measures within Natura 2000 areas

a. *Closure of the Northern Midsea Bank for all fisheries.*

The Northern Midsea bank is situated in the large Natura 2000 area designated for the important breeding area for the Baltic Proper harbour porpoise population (SE0330308). One of the Swedish harbour porpoise monitoring stations in this area has the single most acoustic detections of porpoises in the entire SAC. The Northern Midsea bank has been pointed out by the Swedish Agency for Marine and Water Management to be set aside as an area without local human impacts. We propose that this area is closed for all fisheries with effect immediately (see Fig. 5).

b. *Closing of gillnet fisheries in the rest of the Natura 2000 area Hoburgs bank och Midsjöbankarna (SE0330308) as well as in all other Natura 2000 areas east of 13.5°E where the harbour porpoise is listed as present, until site-specific assessments has been made of the impact of use of ADDs.*

Natura 2000 areas where the harbour porpoise is listed as present should be closed for gillnet fisheries, unless it can be proven beyond scientific doubt that the integrity of the respective site (including it being an environment with conditions that promote the porpoise population to achieve a favorable conservation status) is not adversely affected or reduced by the use of gillnets when those have ADDs. If assessments show that some gillnet fishing using ADDs could be allowed, this needs to be subject to a strict permitting procedure, and with mandatory use of ADDs and AIS/high res VMS as well as REM monitoring.

3.1.2 Measures outside Natura 2000 areas

a. *Mandatory use of ADDs in all commercial gillnet fisheries outside Natura 2000 areas*

   Mandatory use of ADDs east of E13.5° and north to the Finnish Archipelago Sea at N 60.0°, to minimise bycatch risk in the entire range of the population.

b. *Accurate recording of fishing effort and gear type used*

   Accurate data on fishing effort is crucial for calculating bycatch rates, which in turn is necessary to take conservation action.

c. *Dedicated electronic monitoring on all gillnet vessels in the region*

   Remote Electronic Monitoring for monitoring of bycatch, for example using cameras on board, should be mandatory for all gillnet vessels, for example in relation to the size and setup of the vessel. Detailed positioning of the vessel at all times, using for example high resolution VMS or AIS, should be mandatory in all cases.

d. *Monitoring and adaptive management/mitigation measures of gillnet fisheries*

   Monitoring on all gillnet vessels should be made mandatory. If bycatch is observed, an assessment should be made and adaptive management such as alternative gear or time-area closures implemented. Gillnet effort as well as harbour porpoise presence is comparably high in the Polish EEZ, and it is therefore necessary to implement full-scale monitoring to get better understanding of where the two overlap and bycatch risk is high.

3.2 Legal basis for the adoption of emergency measures

The harbour porpoise is a species listed under Annexes II (animal species of Community interest whose conservation requires the designation of special areas of conservation) and IV (species of Community interest in need of strict protection) of the Habitats Directive; they enjoy dual protection under the law and the Commission is empowered to implement different kinds of urgent measures to ensure that the population will be maintained for a period that can allow Member States to implement conservation measures while there are still possibilities that these measures can restore the population to Favourable Conservation Status (FCS).

3.2.1 Measures inside Natura 2000 sites

Article 6 of the Habitats Directive

Article 6 of the Habitats directive calls for Member States to establish necessary conservation measures corresponding to the ecological requirements of the species listed in Annex II present in a Natura 2000 area, to avoid the deterioration of the sites or the significant disturbance of the species for which the sites were designated. Article 6 of the Habitats Directive also mandates that plans or projects not directly connected with or necessary to the management of the site but likely to have a significant effect thereon be only authorised when the authorities "have made certain that it will not adversely affect the integrity of the protected site. This is so when there is no reasonable doubt from a scientific point of view as to the absence of such adverse effects." [1]

[1] Case C-142/16, *Commission* v *Germany* p. 33

Article 11 of the CFP

Article 11 of Regulation 1380/2013 (the CFP) establishes the process for adopting measures to comply with Article 6 of the Habitats Directive for Natura 2000 sites in which several Member States have a direct management interest in the fishery to be affected by such measures.

Article 11 of the CFP precludes a Member State from adopting unilaterally, with respect to the waters under their sovereignty or jurisdiction, measures which apply to fishing vessels of other Member States. In those instances, the measures should be adopted by the Commission, upon the submission of a joint recommendation by the initiating Member State and the other Member States having a direct management interest. If the Member States cannot agree on sufficient measures, the Commission may submit a proposal in accordance with the treaty (Article 11(3) of the CFP).

In the absence of joint recommendations and in cases of urgency, the Commission **shall** adopt emergency measures to apply for a maximum of 12 months, which can be extended for an additional period of 12 months, provided that the conditions that granted the adoption of the measures continue to exist. (art 11(4) and 11(5)). The measures adopted by the Commission shall be limited to those in the absence of which the achievement of the objectives associated with the establishment of the conservation measures in accordance with the Directives referred to in paragraph 1 and the Member State's intentions, is in jeopardy.

In the site evaluation for the species in Annex II of the Habitats Directive, the standard data form of the site *Hoburgs bank och Midsjöbankarna (SE0330308)* lists the permanent presence of a population of harbour porpoise on the site of about 400 individuals and states that the site is “the core area of the Baltic Sea population of porpoises”.

The other Natura 2000 areas listed in table 1 list the harbour porpoise as one of the key Annex II species present in the sites. As was explained in section I of this briefing, bycatch is an acute threat to this population of Harbour Porpoise and losing even one of those females could have a devastating effect on the ability of the population to recover or even stay stable at the low numbers of today.

Article 3 of the Habitats Directive explains that the purpose of the Natura 2000 network is to enable the natural habitat types and the species' habitats concerned to be maintained or, where appropriate, restored at a favourable conservation status in their natural range.

If measures are not taken urgently to protect the Harbour porpoise population for which the sites were designated, the achievement of the objectives associated with the establishment of the sites and the conservation measures that could later be implemented via the procedure set in Article 11(2) of the CFP will be in jeopardy. If the Commission does not take urgent action, under Articles 11(4) and 11(5) CFP, it may not be possible to, at a later date, restore the population of Baltic Harbour porpoise to favourable conservation status in their natural range.

3.2.2 Measures outside Natura 2000 sites

Article 12 of the Habitats Directive

Article 12(4) of the Habitats Directive requires Member States to establish a system to monitor the incidental capture and killing of all species of cetaceans – including the Harbour porpoise – and, in the light of the information gathered, 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.

As was explained in section I of this briefing, bycatch is having such a significant impact on the Baltic Proper harbour porpoise population that the population cannot be expected to recover unless incidental catches can be reduced to close to zero. According to a PBR carried out by the NAMMCO & IMR workshop (2019), for the Baltic Proper harbour porpoise population to recover, no more than 0.1 porpoises per year, i.e. 1 animal per decade, can be lost to bycatch.

Article 12(1)(a) of the Habitats Directive establishes the obligation of Member States to take the requisite measures to establish a system of strict protection for cetaceans (including the harbour porpoise) in their natural range prohibiting all forms of deliberate capture or killing of specimens of these species in the wild.

This prohibition is not subject to the capture or killing having a significant negative impact on the species concerned. All deliberate captures or killings of cetaceans in the wild are prohibited in the EU.

What is understood by 'deliberate' has been defined by the Court of Justice of the European Union (CJEU) in *Commission* v *Spain*, which establishes that "For the condition as to 'deliberate' action in Article 12(1)(a) of the directive to be met, it must be proven that the author of the act intended the capture or killing of a specimen belonging to a protected animal species or, at the very least, accepted the possibility of such capture or killing." [2]

In *Commission* v *Cyprus*, the CJEU found that Article 12(1) imposes the obligation to Member States to go beyond the simple transposition of EU law and adopt a coherent and coordinated set of measures to enable the effective avoidance of all forms of deliberate capture or killing of specimens of animal species listed in Annex IV(a) of the Habitats Directive in the wild.[3] This same interpretation of the duties of Member States under Article 12(1) of the Habitats Directive is found in *Commission* v *Hellenic Republic*[4] and *Commission* v *Ireland.*[5]

Regulation 812/2004 (now 'Technical Conservation Measures' regulation)

Regulation 812/2004 lays down measures to monitor and minimise the incidental catches of cetaceans. Regulation 812/2004 has been integrated into the broader regulation on 'Conservation of fisheries resources and the protection of marine ecosystems through technical measures' ('Technical Conservation Measures' regulation), which has recently been adopted by the European Parliament. The measures on cetacean bycatch in the 'Technical Conservation Measures' regulation are the minimum expected from Member States to comply with the obligation under article 12 of the Habitats Directive in relation to cetaceans.

Unfortunately, the mitigation measures in the Regulation are not sufficient to prevent bycatch having significant impact on the population of harbour porpoise. For example, Regulation 812/2004 (and the new Technical Conservation Measures regulation) mandates the use of Acoustic Deterrent Devices (ADDs) in the fishing nets in some areas. However, the spatial specifications on mandatory use of ADDs in the Baltic Sea do not correspond to the main distribution range of the population as found in the SAMBAH project (Carlén et al., 2018, Fig. 4). Much of the fishing taking place in the Baltic proper, where the population of Baltic harbour porpoise lives, is carried out by small vessels.

[2] Case C-221/04, *Commission* v *Spain*, para. 71

[3] Case Case C-340/10, *Commission* v *Cyprus,* para. 59 - 62

[4] Case C-518/04 *Commission* v *Hellenic Republic,* para. 16.

[5] Case C-183/05 *Commission* v *Ireland,* para. 29, 30.

When it comes to bycatch monitoring, Regulation 812/2004 (and the new Technical Conservation Measures regulation) requires that vessels with an overall length of less than 15 m, collect data on incidental catches through scientific studies or pilot projects (these pilot projects should cover a minimum percentage of the fishing effort of each Member State). However, little has been done regarding this matter in the Baltic Proper until today.

In consequence, it is hard to establish with certainty which vessels and gears are causing the bycatch of the Baltic Harbour porpoise, which in turn reduces the possibility to adopt more targeted conservation measures and increases the need for closures to all vessels and all fishing gear in order to allow the possibility of the population of Baltic harbour porpoise to be restored to FCS.

Article 12 of the CFP

Under Article 12 of the CFP, on duly justified imperative grounds of urgency relating to a serious threat to the conservation of marine biological resources or to the marine ecosystem based on evidence, the Commission, at the reasoned request of a Member State or on its own initiative, may, in order to alleviate that threat, adopt immediately applicable implementing acts applicable for a maximum period of six months.

The Baltic Proper harbour porpoise population is critically endangered and any bycatch incidence may impede the restoration of the species to FCS. On these grounds, the Commission is justified to take measures outside Natura 2000 sites in the Baltic, while the Member States improve their monitoring systems and implement a coherent and coordinated set of measures to effectively prevent bycatch of Baltic harbour porpoise.

The lack of compliance by the Member States with vessels carrying their flag that fish in the Baltic with their bycatch monitoring obligations and the failure by the Member States to adopt a system of strict protection for the Baltic harbour porpoise is currently risking the survival of this population. If immediate action is not taken, we risk a situation where the population is further depleted and fisheries have to be closed throughout the Baltic Sea in order to ensure its conservation.

4. Socio-economic impacts of the measures

For Baltic Sea fishermen, the proposed closure would have a rather small impact in Swedish waters. A limited number of fishermen would be affected and they would very likely be able to move to other areas close by. The impact of seasonal closures in Polish waters may be greater, because more fishermen (Poland had 423 gillnet vessels registered in 2018) and a larger proportion of available sea area would be affected (Fig. 7), which would make it more difficult for fishermen to find alternative areas to fish.

Figure 6 shows the average fishing effort with static gear in the Baltic Sea during 2012-2015. The fishing effort is higher in the southern parts of the Baltic Proper, while the effort further north is comparably low. In general, gillnet fishing effort across ICES subdivisions 22-28 has declined over the period 2003-15 (ICES, 2017). In the northern areas, this is partly driven by the increase in numbers and range of grey seal, which can take or destroy large parts of the catch, slowly forcing fishermen to change gears or quit. The gillnet fisheries taking place within the SAC seems to be a consequence of fishermen avoiding coastal areas with higher seal densities, and where the problem with seal damage is smaller.

The proposal for mandatory use of ADDs (outside MPAs) would entail a cost for fishermen, which may potentially be difficult to bear.

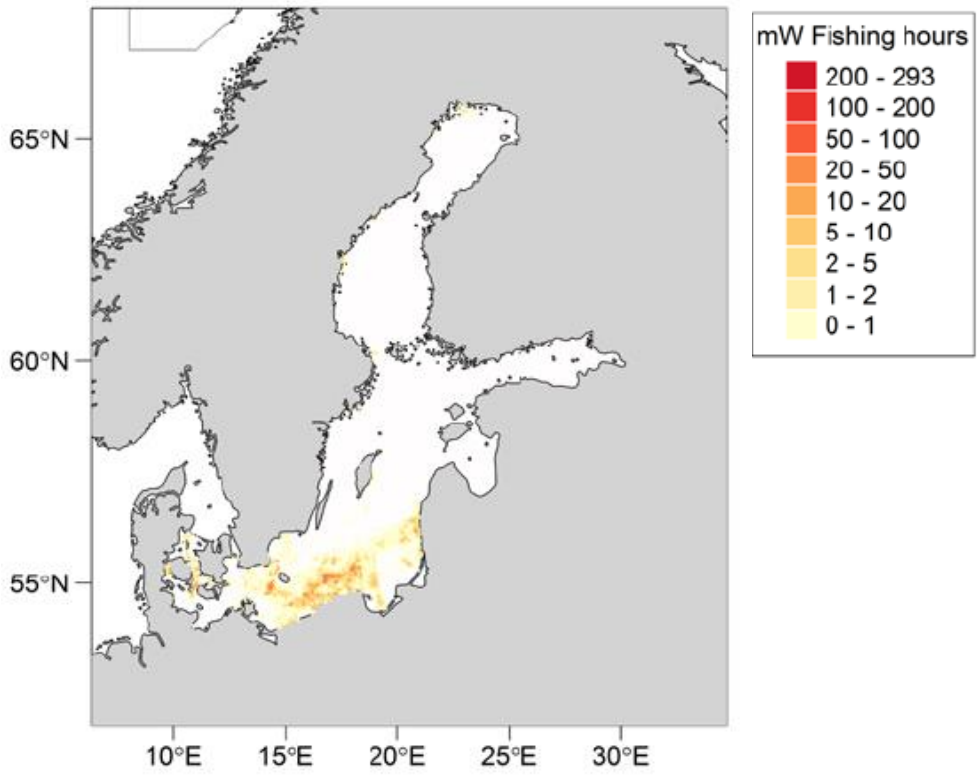


Figure 7. Spatial distribution of average fishing effort (mW fishing hours) with static gear in the Baltic Sea during 2012–2015. Fishing effort data are only shown for vessels >12 m carrying VMS. Estonian fishing effort is not included due to incompatible data, and Russian data are absent as they were not received (Source: ICES, 2017).

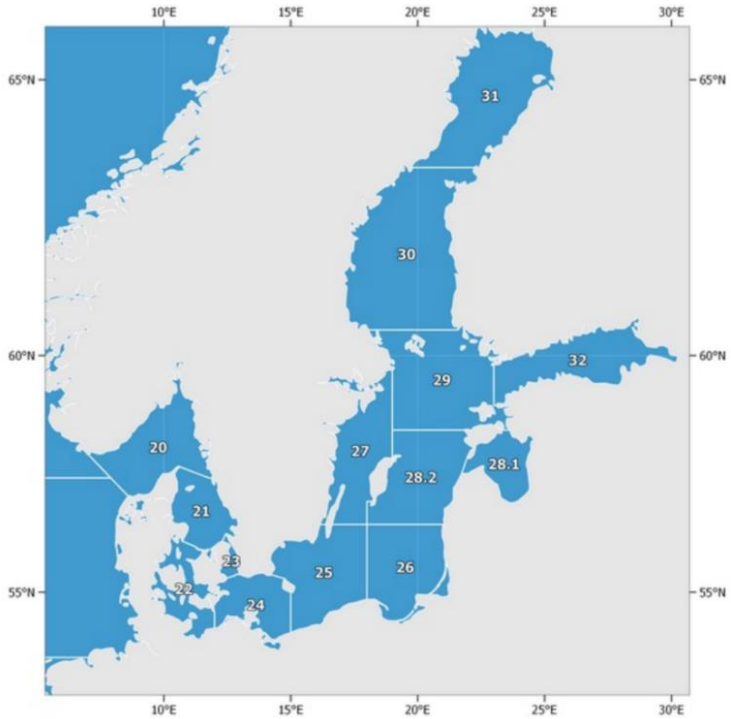


Figure 8. Map of the ICES Area subdivisions of the Skagerrak, Kattegat, Belt Seas and Baltic Proper, for the reporting of catch statistics (Source: ICES).

5. Proposed measures to address social impacts

Funding has to be provided for programmes aiming at developing and testing alternative gear which potentially can replace gillnets. Such programmes have been conducted in for example Germany and Sweden to design and test gear such as pots, automated jigging machines, automated long-lines. Currently, the German Thünen Institute is developing more acoustically reflective types of gillnets. The European Maritime and Fisheries Fund (EMFF) is one potential funding source for such programmes.

For more effective implementation of ADDs in Baltic Proper gillnet fisheries, we would suggest that the EMFF and other similar funds can provide funding for fishermen to purchase ADDs.

It is of utmost importance to involve all stakeholders into a process that is meant to transform local fisheries with the aim to make marine resource usage sustainable. Therefore, funding should also be provided to increase cooperation and dialogue between fishermen, scientists, managers and environmental NGOs.

6. Signatories

Monica Verbeek, Executive Director, Seas At Risk
Mikhail Durkin, Executive Secretary Coalition Clean Baltic
Chris Butler-Stroud, Chief Executive, Whale and Dolphin Conservation
Douglas A. Rouley, Chief Counsel, ClientEarth
Fintan Kelly, Policy Officer, Birdwatch Ireland
Karin Dubsky, International Coordinator, Coastwatch Europe
Morten Pedersen, Head of Department, Danish Society for Nature Conservation
Ana Aldarias, Coordinator of Marine Programme, Ecologistas en Accion
Jan Isakson, Director, The Fisheries Secretariat
Lydia Chaparro Elias, Environmental Consultant, Fundació ENT
Michel Dubromel, President, France Nature Environnement
Jo Swabe, Senior Director of Public Affairs, Humane Society International/Europe
Staci McLennan, EU Office Director, International Foundation for Animal Welfare
Seán Meehan, Chairman, Irish Wildlife Trust
Simon Berrow, Chief Executive Officer, Irish Whale and Dolphin Group
Allain Bougrain Dubourg, President, Ligue pour la Protection des Oiseaux
Sandy Luk, Chief Executive, Marine Conservation Society
Karin Lexén, Secretary General, Naturskyddsföreningen – Swedish Society for Nature Conservation
Anke Geeraerts, Beleidscoördinator, Natuurpunt
Pascale Moehrle, Executive Director of Oceana in Europe, Oceana
Nicolas Entrup, Co-Director International Relations, OceanCare
Rebecca Hubbard, Program director, Our Fish
Gonçalo Ferreira de Carvalho, Executive Coordinator, Sciaena
Lamya Essemlali, President, Sea Shepherd France
Sinead O'Brien, Coordinator, Sustainable Water Network SWAN
Ottilia Thoreson, Programme Director, WWF Baltic Ecoregion Programme
Samantha Burgess, Head of EU Marine Policy, WWF European Policy Office

7. References

Carlén, I., Thomas, L., Carlström, J., Amundin, M., Teilmann, J., Tregenza, N., Tougaard, J., Koblitz, J.C., Sveegaard, S., Wennerberg, D., Loisa, O., Dähne, M., Brundiers, K., Kosecka, M., Kyhn, L.A., Ljungqvist, C.T., Pawliczka, I., Koza, R., Arciszewski, B., Galatius, A., Jabbusch, M., Laaksonlaita, J., Niemi, J., Lyytinen, S., Gallus, A., Benke, H., Blankett, P., Skóra, K.E., Acevedo-Gutiérrez, A., 2018. Basin-scale distribution of harbour porpoises in the Baltic Sea provides basis for effective conservation actions. Biol. Conserv. 226, 42–53. https://doi.org/10.1016/j.biocon.2018.06.031

Galatius, A., Kinze, C.C., Teilmann, J., 2012. Population structure of harbour porpoises in the Baltic region: evidence of separation based on geometric morphometric comparisons. J. Mar. Biol. Assoc. U. K. 92, 1669–1676. https://doi.org/10.1017/S0025315412000513

Hammond, P.S., Bearzi, G., Bjørge, A., Forney, K.A., Karczmarski, L., Kasuya, T., Perrin, W.F., Scott, M.D., Wang, J.Y., Wells, R.S., Wilson, B., 2016. Phocoena phocoena Baltic Sea subpopulation (errata version published in 2016) (No. e. T17031A98831650), The IUCN Red List of Threatened Species 2008.

ICCB, 2017. Role of Cetaceans in Ecosystem Functioning: Defining Marine Conservation Policies in the 21st Century. (No. Workshop report from the 28th International Congress for Conservation Biology).

ICES, 2018. Report from the Working Group on Bycatch of Protected Species, (WGBYC), (No. ICES CM 2018/ACOM:25). Reykjavik, Iceland.

ICES, 2017. 5.2. Baltic Sea Ecoregion – Fisheries overview. ICES Fisheries Overview. Copenhagen, Denmark.

Karl, H., Ruoff, U., 2007. Dioxins, dioxin-like PCBs and chloroorganic contaminants in herring, Clupea harengus, from different fishing grounds of the Baltic Sea. Chemosphere 67, S90–S95.

Kesselring, T., Viquerat, S., Brehm, R., Siebert, U., 2018. Correction: Coming of age: - Do female harbour porpoises (Phocoena phocoena) from the North Sea and Baltic Sea have sufficient time to reproduce in a human influenced environment? PLOS ONE 13, e0199633. https://doi.org/10.1371/journal.pone.0199633

Kesselring, T., Viquerat, S., Brehm, R., Siebert, U., 2017. Coming of age: - Do female harbour porpoises (Phocoena phocoena) from the North Sea and Baltic Sea have sufficient time to reproduce in a human influenced environment? PLOS ONE 12, e0186951. https://doi.org/10.1371/journal.pone.0186951

Kiszka, J., Heithaus, M., Wirsing, A., 2015. Behavioural drivers of the ecological roles and importance of marine mammals. Mar. Ecol. Prog. Ser. 523, 267–281. https://doi.org/10.3354/meps11180

Lah, L., Trense, D., Benke, H., Berggren, P., Gunnlaugsson, Þ., Lockyer, C., Öztürk, A., Öztürk, B., Pawliczka, I., Roos, A., Siebert, U., Skóra, K., Víkingsson, G., Tiedemann, R., 2016. Spatially Explicit Analysis of Genome-Wide SNPs Detects Subtle Population Structure in a Mobile Marine Mammal, the Harbor Porpoise. PLOS ONE 11, e0162792. https://doi.org/10.1371/journal.pone.0162792

Murphy, S., Barber, J.L., Learmonth, J.A., Read, F.L., Deaville, R., Perkins, M.W., Brownlow, A., Davison, N., Penrose, R., Pierce, G.J., others, 2015. Reproductive Failure in UK Harbour Porpoises Phocoena phocoena: Legacy of Pollutant Exposure? PloS One 10.

North Atlantic Marine Mammal Commission and the Norwegian Institute of Marine Research, 2019. Report of Joint IMR/NAMMCO International Workshop on the Status of Harbour Porpoises in the North Atlantic. Tromsø, Norway.

Sveegaard, S., Galatius, A., Dietz, R., Kyhn, L., Koblitz, J.C., Amundin, M., Nabe-Nielsen, J., Sinding, M.-H.S., Andersen, L.W., Teilmann, J., 2015. Defining management units for cetaceans by combining genetics, morphology, acoustics and satellite tracking. Glob. Ecol. Conserv. 3, 839–850.

Wiemann, A., Andersen, L., Berggren, P., Siebert, U., Benke, H., Teilmann, J., Lockyer, C., Pawliczka, I., Skóra, K., Roos, A., Lyrholm, T., Paulus, K., Ketmaier, V., Tiedemann, R., 2010. Mitochondrial Control Region and microsatellite analyses on harbour porpoise (Phocoena phocoena) unravel population differentiation in the Baltic Sea and adjacent waters. Conserv. Genet. 11, 195–211.


Coalition
Clean Baltic


SEAS AT RISK


ClientEarth


WDC
WHALE AND
DOLPHIN
CONSERVATION


Coastwatch


Danmarks
Naturfredningsforening


ecologistas
en acción


BirdWatchIreland


FRANCE NATURE
ENVIRONNEMENT


Irish Whale
and Dolphin Group


IFAW
International Fund for Animal Welfare


FUNDACIÓ
ent


IRISH
WILDLIFE
TRUST


LPO


AGIR pour la
BIODIVERSITÉ


ocean care


OCEANA


FISHSEC
THE FISHERIES SECRETARIAT


HUMANE SOCIETY
INTERNATIONAL
EUROPE


Swedish Society
for Nature Conservation


Our Fish

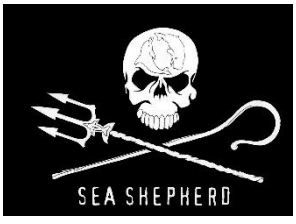

marine
conservation society


Sustainable Water Network
SWAN


SCIAENA


WWF


natuurpunt


SEA SHEPHERD