

REPORT OF THE 18th MEETING OF THE ASCOBANS JASTARNIA GROUP

Gothenburg, Sweden

28 - 30 March 2022



**Agreement on the Conservation of Small Cetaceans
of the Baltic, North East Atlantic, Irish and North Seas**



Some of the participants at the 18th Meeting of the Jastarnia Group. © ASCOBANS Secretariat.

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REPORT OF THE 18TH MEETING OF THE ASCOBANS JASTARNIA GROUP

1. Opening of the meeting

1.1. Opening remarks

Ida Carlén (Coalition Clean Baltic - CCB), the Chair of the Jastarnia Group, welcomed all participants, expressing enthusiasm for seeing everyone again in person after a while. She then passed the floor to the host of the meeting, Susanne Viker (Sweden). Ms. Viker welcomed participants on behalf of Sweden and gave brief housekeeping announcements.

Jenny Renell (Secretariat) pointed out that this was the first face-to-face ASCOBANS meeting since September 2019 and remarked that ASCOBANS is celebrating its 30th anniversary this year, with the official date having been two weeks prior. She noted that Jastarnia Group was the longest running working group of ASCOBANS: it convened the first time in 2005.

For various reasons there was no report writer for the meeting. To facilitate the drafting of the meeting record, Ms. Renell requested that meeting participants email their statements and interventions to the Secretariat, if they should be included in the report. She thanked Ms. Viker for organising an online connection for remote participants. Ms. Carlén observed that there were new participants, and suggested a round of introductions.

1.2. Adoption of the agenda

The Chair suggested to discuss a draft letter on underwater explosions under 'Any Other Business'. This was a letter tasked by the Jastarnia Group meeting in 2020 (see [JG16 report](#), annex 2). She would share the text out to participants to review before it could be officially sent. She asked Members to give any comments by the end of the meeting. Without any further suggestions, the [Provisional Agenda](#) (Doc.1.2a) was adopted.

2. Progress under the Jastarnia Plan and the Western Baltic, Belt Sea and Kattegat Plan

The Chair noted that the tables on assessment of progress in implementing the Jastarnia and WBBK conservation plans could be found in each of the progress reports. She added that any information shared during this meeting would be used to make a final report within 6 weeks from that day and participants would be allowed to review the process.

2.1. Overview report on progress

Western Baltic Conservation Plan

The Chair presented a qualitative assessment of progress in the implementation of the Conservation Plan for the Harbour Porpoise Population in the Western Baltic, the Belt Sea and the Kattegat (WBBK), contained in the [Progress Report of 2021](#).

On action 1, the Chair pointed out that they had a coordinator (CCB) for 2021. Regarding actively seeking to involve fishers, all countries scored '1' according to the assessment criteria, which would be discussed later at the meeting. On cooperation, the Chair lamented that nothing much had been done so far, with all countries scoring '0'. Regarding protecting harbour porpoises in their key habitats, all countries scored '1', and the Chair proposed the meeting may wish to discuss this due to the EU Delegated Act that closes some Natura2000 areas for static net fisheries. Denmark was the only

country that had a report on estimate total annual bycatch, which was mentioned in their National Report to ASCOBANS. Estimating trends in abundance in the WBBK area, all countries scored ‘1’ on population-wide. The Chair acknowledged that including monitoring and management in national harbour porpoise management plans was difficult and there had been no improvements in that action, with all countries scoring ‘0’. Sweden and Denmark scored ‘1’ for restoring or maintaining habitat quality, while Germany scored ‘0’, which would be discussed later.

Actions from the WBBK Conservation Plan for HP		Priority	SE	DK	DE	
1	Implementation of the CP: co-ordinator and Steering Committee	High	Co-ordinator for 2020			
2	Actively seek to involve fishermen in the implementation of the plan and in mitigation measures to ensure a reduction in bycatch	High	1	1	1	
3	Cooperate and inform other relevant bodies about the conservation plan	High	0			
4	Protect harbour porpoises in their key habitats by minimizing bycatch	High	1	1	1	
5	Implement pinger use in fisheries causing bycatch	High	1	1	1	
6	Replacement of high risk gillnets with alternative gear	High	1	1	1	
7	Estimate total annual bycatch	High	Estimate total annual bycatch	0	1	0
			Facilitate landings of bycaught harbour porpoises	1	1	1
8	Estimate trends in abundance in the Western Baltic, the Belt Sea and Kattegat	High	Population-wide surveys	1		
			Reg/survey	2	2	2
			Identify a survey interval for population-wide surveys	0		
9	Monitoring population health status, contaminant load and causes of mortality	Medium	2	0	3	
10	Ensure non-detrimental use of pingers by examining habitat exclusion and long-term effects of pingers	Medium	1	1	0	
11	Include monitoring & management of important prey species in national HP management plans	Medium	0	0	0	
12	Restore or maintain habitat quality	Medium	1	1	0	

Figure 1. Summary of Progress in the Implementation of the Conservation Plan.

The Chair noted that the ASCOBANS North Sea Group (NSG) had made amendments in the assessment criteria. Therefore, the meeting could discuss any comments and suggestions in more detail during the next day while reviewing the changes made by NSG.

Jastarnia Plan

The Chair presented a qualitative assessment of progress in the implementation of the Recovery Plan for Baltic Harbour Porpoises (Jastarnia Plan), contained in the [Progress Report of 2021](#). She remarked that public awareness was slightly better than involvement and cooperation of stakeholders, and urged the participants to give suggestions on how to improve this part by the end of the meeting. She added that she tried to invite low impact fisheries of Europe but that was unsuccessful. Ms. Sara Königson (Sweden) mentioned that in earlier years, such stakeholders would get paid to join the meeting and that would incentivise them to do so. Therefore, she suggested to increase the funding and to prioritize certain stakeholders. The Chair argued that funds to cover travel are limited, however, she recognised that is something that should be considered.

On population-wide monitoring, the Chair lamented that even though SAMBAH II was planned, there were no current plans for funding it and no solution so far. She encouraged countries to try to think about solutions for this issue. She praised the progress on regional and national monitoring, as well as population structure in the Baltic region and encouraged Lithuania to add their progress. On bycatch, the Chair noted that the EU Delegated Act to mitigate bycatch of Baltic Proper harbour porpoise came into force in February 2022.

Regarding underwater noise, the Chair mentioned improving knowledge but there had been no decisions on thresholds for underwater noise. As part of mitigating efforts, there was the letter that she mentioned earlier to be sent to the navies; nonetheless, a lot more could be done. Signe Sveegaard (Denmark) mentioned that OSPAR and HELCOM noise groups have discussed this issue, and that is where this topic should be discussed. The Chair noted that, however, these groups had not arrived at a solution. It was argued that the noise groups can only estimate impacts and they had not yet agreed on any threshold. The Chair suggested supporting the groups with knowledge on the effects of underwater noise on harbour porpoises, and concluded that the thresholds should be the first step to be decided.

Actions from the Jastarnia Plan		Priority		SE	DK	DE	PL	FI	LI	LA	EE	RU
1	Implementation of the CP: co-ordinator and Steering Committee	High		Co-ordinator for 2020								
2	Increase involvement, awareness and cooperation	High	Public awareness	2	1	2	2	2	1	0	0	1
			Involvement and cooperation	1	1	1	1	1	0	0	0	0
3	Monitor and estimate abundance and distribution	High	Population-wide (including modelling)	SAMBAAH II planned								
			Regional/national monitoring	2	2	2	1	2	0	0	0	0
			Population structure in the Baltic Region	2	1	3	1	2	0	0	0	0
4	Bycatch	High	Monitor bycatch	1	1	1	1	0	0	0	0	0
			Estimating bycatch	1	1	1	0	NA	NA	NA	NA	NA
			Reducing bycatch	1	1	1	1	0	0	0	0	0
5	Monitor and mitigate impact of underwater noise	High	Improve knowledge and develop threshold limits	1	1	1	0	1	0	0	0	0
			Mitigating effects	1	1	2	0	1	0	0	0	0
6	Monitoring and assess population health status	Medium		2	0	3	1	NA	NA	NA	NA	NA
7	Investigate habitat use and protect important areas	Medium	Investigating habitat use	2	2	2	2	2	2	2	2	0
			Protecting important areas	1	1	1	1	0	0	0	0	0

Figure 2. Summary of progress in the implementation of the Recovery Plan.

Finally, regarding the status assessment criteria, some modifications were made during the NSG meeting earlier this year. The Chair was to send both old and new versions to the participants, which would be discussed in the following day, and if not finished at the meeting, proposed finishing it after the meeting through email correspondence.

2.2. National progress reports on activities since May 2021

Sweden

Ms. Kylie Owen presented the [National Progress Report for Sweden](#). Different organisations had been involved on increasing involvement, awareness and cooperation, including the media. The Swedish Agency for Marine and Water Management (SwAM) continued dialogue meetings with fisheries and closed fisheries in one of Natura 2000 site. The Chair remarked that CCB had published a petition for the protection of the Baltic harbour porpoise, however it was not open for signatures yet.

On monitoring and estimating abundance and distribution, the results of the MiniSCANS II survey carried out in 2020 were reported. Another report on the results of the Swedish national monitoring program for the Belt Sea population was being produced. Future plans included a new SAMBAH II application and the SCANS IV survey in July 2022. The Swedish Museum of National History (NRM) was to prepare an expert-based qualitative assessment on the status of the Baltic Proper harbour porpoise population for HELCOM in summer 2022. A Swedish regional monitoring program was

also planned by some County Administrative Boards, but due to the security situation, were currently not allowed to deploy devices.

Various projects and research were in place to monitor underwater noise and its impact on harbour porpoises. In order to monitor and assess population health status, in 2021 a total of 31 animals were collected for necropsy, indicating that bycatch was the most common cause of death. A report by Teilman et al. (2022) based on satellite data within Swedish borders found important areas of habitat use for harbour porpoises.

Peter Evans (Chair of the NSG) addressed the question about the EU project on management effectiveness of Natura 2000 sites and other EU MPAs. He explained that the project extends to all EU coastal countries, for management authorities to complete a questionnaire covering marine taxa under protection either through the habitat directive or legislative agreements. The results would then be used to organise a workshop in May 2022 for people interested in MPA management. After necessary modifications, the questionnaire would become the means to assess management, particularly for Natura 2000 sites. He added that it was aimed to address 200 sites across the EU marine area.

Sara Königson presented the [Report on actions related to bycatch – Sweden](#). In terms of bycatch monitoring, there was an observer programme in the South Baltic between 2017 and 2019. During 2020-2021 the pilot project MEM (Mobile Electronic Monitoring) took place, in which an electronic camera system was developed to be used in bycatch monitoring on fishing vessels. In 2022 in the context of MEM, a machine learning program was being developed to identify bycatch events in the collected video material, so that the analysis of video material would be more efficient. The program could not only detect porpoises, but also seals, birds, turtles and rays. In addition, a new ICES database was being developed (ICES RDBES) including data from cameras and observers.

Bycatch and mortality limit estimates for the Belt Sea population had been calculated in the summer of 2021, which was included in the HELCOM Action project. A work in collaboration with DTU was calculating new estimates for the Belt Sea population. Numerous measures to reduce bycatch and ongoing projects for alternative gear were in place. Data collected from a project testing pingers in commercial fishery, for instance, revealed that bycatch was very low. Another measure on evaluating the potential positive impacts of the ongoing reduction in fishing effort using gillnets on harbour porpoise populations was being carried out.

Ms. Viker clarified that fishers may report directly to SwAM on the voluntary use of pingers, however data was limited. The Chair agreed that this is an important issue and asked about the possibility of reporting on pingers in the near future. On the comparison between pingers, Ms. Königson noted that Future Ocean Pingers are more effective than Banana pingers in avoiding bycatch, however there had been problems with the battery. She added that despite most fishers using both types, they tend to prefer Banana Pingers for being easier to handle and more resistant.

Regarding the machine learning program, Ms. Königson recognized that it was not fully operational yet, but it should be finished by June 2022. She added that the program is not simple, and it was not designed to be available for mass use. The aim of the program is to detect something going on and indicate where video had to be reviewed by a real person. Nonetheless, the machine had performed well enough to even detect harbour porpoises. The problems were the many factors that should be taken into account such as the angle of the camera, quality of the film, and so on. The results so far indicated that there were not many porpoises in the area and the rate of bycatch is low. She mentioned that SLU were running the model using DTU data.

Finland

Olli Loisa gave a presentation about the [Progress Report in Finland](#). He reported that there are on average about eight porpoises in the Finnish waters, with regular sightings in offshore areas south of Åland. He mentioned cooperation with the Finnish Environment Institute (SYKE) on noise monitoring. They had 3-4 noise monitoring stations, aiming to get one more to Åland waters. Mr. Loisa

mentioned that Sweden is also adding C-PODs to the Bothnia Sea, just in case there are porpoises there. He added that underwater noise monitoring was not being combined with porpoise monitoring, however, there had been more cooperation between the two.

Poland

Magdalena Kamińska gave an online presentation about the [Harbour Porpoise monitoring under the State Monitoring Programme](#). The first phase of the programme started in 2015 with pilot monitoring under the Chief Inspectorate of Environmental Protection, started in March 2016 and lasted for 2 years. On the first year of the second phase from March 2021 to March 2022 they would have the results in late May, which would then be available to publish in July 2022. Ms. M. Kamińska showed that the Polish monitoring data had a higher density detection than in the SAMBAH project. The formula for calculating the porpoise density was part of the methodology report available at <http://morskiesiedliska.gios.gov.pl/pl/>.

A question was raised about extending the programme to cover the Southern Midsea Bank. Poland acknowledged the importance of that area, however due to lack of funding they were not planning to introduce monitoring stations in the Polish part of the Southern Midsea Bank. The Chair pointed out that the Jastarnia Group would discuss projects involving coordination of national monitoring programmes, such as SAMBAH, hence it should be taken into consideration.

Katarzyna Kamińska reported the [Polish obligations stemming from the Delegated Regulation of the European Commission \(EU\) 2022/3030 of 15 Dec 2021, amending Reg \(EU\) 2019/1241](#) as regards measures to reduce incidental catches of the resident population of the Baltic Proper harbour porpoise. She showed how the obligations are affecting fishers with regards to reducing bycatch. In Puck Bay, the obligation would be put into effect from June 2022 to allow fishermen to prepare themselves. Two types of pingers were available for purchase: Banana pinger and Future Oceans. According to the Future Oceans website, their pingers were operating between 60-120 KHz. There were around 150 fishing vessels in Puck Bay that would need to use pingers on their nets. Poland would also be part of the CIBBRiNA project, and it was hoped to be funded through the LIFE scheme.

Iwona Pawliczka informed that 300 Banana pingers were distributed to fishers along the coast and their feedback was positive. She also mentioned that activities done at the Hel marine station of the University of Gdańsk would continue besides the acoustic survey, which is expected to be ready by the end of 2022. Furthermore, the education programmes would also continue to include disabled children.

Germany

Patricia Brtnik reported Germany's [Implementation Review](#). On monitoring and estimating abundance and distribution, she mentioned that the aerial surveys were conducted every second year. In June 2021, abundance was estimated at around 2.209 animals (unpublished data). Despite COVID-19, an incidental sightings programme was able to be conducted, which recorded nearly 800 animals. The acoustic monitoring however had no published data at this time.

On bycatch, Germany had two projects started at the end of 2021 : the project "Stella 2"¹ (follow up of Stella 1) focusing on the further development of different alternative fishing gears had workshops planned for the end of 2022, and pearl nets being tested by DTU Aqua; and monitoring of PALs in cooperation with Denmark and Sweden, where PALs were current efficiency and mode of operation of PALs will be checked. The PAL project in Schleswig-Holstein would next be evaluated.

¹ Outcomes of Stella 1:

- Kratzer I (2021) Gillnet modifications to reduce bycatch of harbor porpoises. DTU Aqua National Institute of Aquatic Resources, 172 p, Lyngby, Techn Univ of Denmark, Section for Ecosystem Based Marine Management, PhD Thesis
- Kratzer I, Brooks ME, Bilgin S, Ozdemir S, Kindt-Larsen L, Larsen F, Stepputtis D (2021) Using acoustically visible gillnets to reduce bycatch of a small cetacean: first pilot trials in a commercial fishery. Fish Res 243:106088, DOI:10.1016/j.fishres.2021.106088

On underwater noise, the project UWE-2 (2021-2024) was a collaboration with ITAW and Aarhus University. On fishery regulations in harbour porpoise MPAs, the discussions for management measures for mobile bottom-contacting gear were in the final phase (development of joint recommendations). On the other hand, management measures for passive gear were not in place yet, as measurements were still being developed, also through the Stella 2 project. Ms. Brtnik also reported that there are now management plans in place for MPAs within the German EEZ of the Baltic Sea (still without fishery regulations).

Denmark

Signe Sveegaard presented [Denmark's National Report](#). On bycatch, she recommended the participants to read the report DTU Aqua 389-2021 on bycatch estimates by Larsen et al. 2021, and she explained some of the methodology and results from the report. Most bycatches took place on the third quarter of the year, with a total of 2,700 bycatches per year.

Ms. Sveegaard introduced an ongoing project with an alternative type of deterrent device called "rattle pingers", which is a type of primitive pinger inspired by modern pingers but using a kind of rattle to create sound. Different types were tested to be detected at different frequencies by fisheries. Despite the advantages of this alternative pinger, its cost-efficiency would have to be improved. Ms. Carlström commented that rattle pingers may work fine in Öresund where there is a stronger current and hence movement in the water, but might not work as well in the Baltic.

It was noted that there is a lot of windfarm construction going on in the Belt Sea, and also that one of the Natura 2000 areas close to Bornholm coincide with an offshore windfarm area. Ms. Sveegaard argued that an evaluation of existing areas should be done in order to see if and how established windfarms could potentially affect the population.

Lithuania

Ieva Čaraitė presented [Lithuania's National Progress Report](#). She highlighted that there were some changes from the previous year regarding monitoring and estimating abundance and distribution, because now an Environmental and Impact Assessment (EIA) would take place to assess the impact on marine mammals including harbour porpoises of a windfarm in Lithuanian waters (red area in the map), and this would generate new information on harbour porpoise presence in Lithuania.

A new project to address underwater noise was also initiated with the aim to implement a National Action Plan to achieve Good Environmental Status (GES) in the Baltic Sea and the Marine Strategy Framework Directive (MSFD). Two stations for underwater noise would be installed in the Lithuanian Baltic Sea territory at 30km and 80 km away from the shore, the further one with aim for national monitoring. Ms. Čaraitė added that after the EIA is completed in 2023, they planned to do more projects in partnership with universities to possibly install other underwater noise stations in new locations. The Chair stated it would be interesting to use C-PODs in combination with such underwater noise monitoring. Mr. Loisa encouraged Ms. Čaraitė to share the results in due course.

Despite no new records of harbour porpoises, a new rehabilitation center was planned to be built in the second quarter of 2022, which also would be a suitable place for necropsy and clinical research in case the animals were to be found. Ms. Čaraitė pointed out that since the new facility was connected to the museum, the people dealing with porpoises' samples would be the same staff as those working in the museum.

A question was raised on whether the noise monitoring stations, and the harbour porpoise monitoring connected to the windfarm EIA would be coordinated together, and since the answer was negative, Ms. Carlén asked Lithuania to consider coordinating across in the future. Ms. Carlström added that HELCOM countries had agreed the year before on a common format for submitting and processing harbour porpoise monitoring data, and she would appreciate it if the data collected from the EIA

could be shared with HELCOM. Ms. Owen or Ms. Carlström would put Ms. Čaraitė in contact with HELCOM.

2.3. Report back on potential effects of the cod fishing ban

Ms. Königson reported that cod fishing effort had been reduced significantly in all of south Baltic and especially in the central Baltic, which is the core area for the harbour porpoise. Mr. Evans suggested that it would be valuable to list areas where porpoises are at highest density with a scale from higher to lower priorities to be cross-checked with fisheries efforts. From there, they could have better discussions on which areas should be prioritized first. The Chair agreed. Mr. Loisa highlighted those areas which were important for harbour porpoises were defined recently, so it was not necessary to repeat the process. Ms. Königson said that they are working on a report covering other targeted species too and it should be ready at the beginning of April 2022.

EU Commission asserted that they supported this regional cooperation regarding measures to protect harbour porpoises and any recommendations put forward they would look closely and find ways to implement them. Once it became a Delegated Act it would become law, but that is what was expected from the transposition of a Joint Recommendation established by the region.

It was also suggested that the bycatch risk map could be used to give general recommendations on areas to be evaluated and possibly prioritized for reduced effort. Ms. Renell (Secretariat) reminded that recommendations made from this group would be forwarded to the AC for an endorsement intersessionally, so they would not need to wait until the next AC meeting in September. She also advised that anything that is forwarded to the AC should be recorded in the Action Points and not in “internal” action points embedded in the report.

The Chair requested the group to present an update on the effects of the cod fishing ban in the following year. Ms Königson agreed to present results

3. Updates from across the Baltic and Belt Seas

3.1. Status of delegated act to minimize bycatch of the Baltic Proper Harbour Porpoise, the status of the pinger/defence issue, and current discussions in BALTFISH on further measures

The Chair noted that this item had been discussed in the previous Jastarnia Group meeting. Since the last meeting of the group a delegated act regulating fisheries in some harbour porpoise protected areas in the Baltic Proper population range had come into effect. However, there was still a need for discussion on further measures to mitigate bycatch of the Baltic Proper harbour porpoise.

BALTFISH

Ilze Rutkovska (representing the current Latvian presidency of the Baltic Sea Fisheries Forum, BALTFISH), gave a presentation on [BALTFISH work on a supplementing Joint Recommendation](#), noting that there was nothing much she could add as far as the Joint Recommendations. She noted that discussions on a third Joint Recommendation were still ongoing despite the two meetings of the Technical Group held in February and March 2022 to discuss possible additional safeguard measures outside the core areas. She added that given the current global situation, large scale use of ADDs is not being considered in the Baltic Sea at the moment.

On additional measures Ms. Rutkovska said that proposals were made but there was no consensus from the countries yet; therefore, it was early to talk about concrete measures. She mentioned that ADDs could be a possibility in some areas in the Baltic Sea besides other measures adopted by the member states themselves.

The Chair asked whether dynamic closures had been discussed in BALTFISH meetings. Ms. Rutkowska responded that there was a proposal to prepare measures such as dynamic closures for countries where the harbour porpoises are rare (Estonia, Finland, Latvia, Lithuania) and others which were not included in the previous Joint Recommendations, but at that point nothing was certain.

Even though Germany and Denmark were considering using ADD in limited areas, other measures would be necessary to be implemented especially in the north and northeast areas where measures were lacking. Ms. Carlström also noted that dynamic closures should be addressed carefully as porpoises are very mobile and hard to be monitored across borders. She added that more reliable information from projects like SAMBAH, in addition to more expanded and optimized monitoring programs were needed.

Delegated Act

The European Commission (EC) noted that there should be strict enforcement and monitoring for the measures in N2000 sites that were adopted as a Delegated Act on 26 February. EC had strong doubts that additional measures relying on voluntary closures upon porpoise sightings would prevent the extinction of the population and would not be in compliance with the Habitats Directive. Such measures were helpless since the mammal is hard to see. EC expects that strong preventive and obligatory measures are urgently put in place and that these measures are at least as effective as pingers to ensure that not a single animal will be bycaught during fishing operations. In addition, in their view, any measure, in particular if supported by EU funds, should prevent extinction of the population and ensure full compliance with EU law and with the policy goals in the Biodiversity Strategy.

Mr. Evans noted that the complete closure in key areas, that had already been identified, during time periods when animals were predicted to be present, would be not only necessary but perhaps the only solution. He added that acoustic monitoring from projects such as SAMBAH would help them to identify changes over time. The Chair then, called upon the expert group to give additional recommendations to BALTFISH on measures they could take since pingers were no longer an option.

Ms. K. Kamińska introduced a document they had been working on at HELCOM, about a proposal with measures to address bycatch (Table “next steps for the implementation of the BSAP action S43”). The actions consisted of three elements: further data collection and analysis, measures to mitigate bycatch, and technical operation measures. It was brought to the attention of the meeting that some measures such as implementation of alternative gear had been discussed for years but they were not ready yet. On the other hand, closing areas for static net fisheries could possibly push fishers to adapt alternative gear at a quicker pace.

Pinger/defence issue

The Chair explained that in April 2021 military forces from some Baltic countries forbade the large-scale use of pingers because it could affect their abilities to detect submarines using sonar, as well as disturb other underwater acoustic activities. The military forces seemed to have worked only with modelling to arrive at this conclusion, not with real-life experience. The situation has only become more fraught with the recent Russian invasion to Ukraine. She added that it may be possible to technically adapt pingers so that they would be less of a problem for the navies, but in the short-term countries would probably have to think of other bycatch mitigation measures.

The Chair added that being able to send a map would be very helpful. Mr Evans said it would still be valuable to map high density areas and overlap with fishing effort, and then discuss which you would prioritise, which are high risk. The Chair mentioned that she as a member of an IWC working group, was planning to send a letter to concerned countries and argued that incorporating a map of fishing efforts in the letter would be a good way to convey the information. Discussion continued about the difficulties in obtaining fishing effort data and the possibility of making a detailed high-resolution map for Sweden. In addition, getting the information from the right person was another challenge. Mr. Evans suggested the possibility of using AIS to monitor fishing efforts, as is already being used in

projects around the world, however the question was raised that maybe the main part of gillnet vessels in the Baltic are below 12 m and would not use AIS. Ms. Viker added that Sweden was willing to provide information on effort reduction.

The meeting next discussed the process of Jastarnia Group (JG) sending letters. Questions were raised about an expert group providing advice versus endorsement from the AC. Other concerns were raised regarding external expertise potentially needed to provide advice on specific matters. The Chair argued that in this case, the letter would be to notify JG's concern to for the affected population. It was reminded that a letter about pingers and protection of harbour porpoises had been sent to Finland and Germany in 2021, however not yet to Sweden, which has the most important areas for harbour porpoises. The Chair acknowledged that this was a political issue which should be addressed carefully, however, this being an expert group, they should be able to give their expert opinion. On the other hand, there was some scepticism about a letter to military having any effect. It was noted that at the previous meeting of the AC, it was agreed to convene a workshop with representatives of national navies and NATO (AC26/AP3), and that would be perhaps more productive than letters. (See Annex 2, JG18 Action Point 29)

The Chair also reminded that there are two separate issues at hand: one was the possibility of sending a letter about pingers, and the other about giving recommendations on alternatives for pingers² (via the traditional "Action Points from the [x] Meeting of the Jastarnia Group"). The Secretariat suggested to share the Action Points, including the action of sending a letter, with the AC for endorsement intersessionally. (See Annex 2, JG18 Action Point 25)

The Chair remarked that the idea of closing areas was pointed out by Mr. Evans as the only solution, therefore the JG should focus on which areas those should be. For example, in Swedish territories those could be based on SAMBAH outcomes or national monitoring.

3.2. Overview of HELCOM matters related to harbour porpoises

Mr. Florent Nicolas (HELCOM), gave his presentation on the [Overview of HELCOM matters related to harbour porpoise](#). The updated Baltic Sea Action Plan (BSAP) was adopted during the HELCOM Ministerial meeting held in Lübeck in October 2021. The goal is to have a Baltic Sea with a healthy ecosystem and resilience, which is unaffected by eutrophication and is free of hazardous substances and litter, and where environmentally sustainable sea-based activities take place. The BSAP contained a total of 199 actions that States had agreed to be implemented by 2030. In this regard, the harbour porpoise was particularly relevant to the two themes within the segment on biodiversity, namely spatial conservation measures, and the conservation of species. The theme on underwater noise, as well as the theme on fisheries management under sea-based activities, was also important to conservation of the harbour porpoise.

Under the conservation of species, action B8 was directly related to the harbour porpoise. It requires specifying the knowledge gaps on threats which include bycatch, underwater noise, contaminants, and prey depletion on the Baltic Proper harbour porpoise population by 2022 and on the western Baltic population by 2023. Action B8 also included additional areas of high bycatch to be identified for both Baltic Sea populations by 2028. Additionally, this action includes identifying possible mitigation measures for other threats by 2025, and implementing such measures as they become available.

Further actions relating to the harbour porpoise within the biodiversity segment of the BSAP were actions B22-B24 (Red List assessment, ecologically relevant conservation plans, assessment of conservation measures). The second segment related to the harbour porpoise is "sea-based activities" where fisheries management contained six actions on bycatch (S43-48). Lastly, underwater noise contained three actions with regard to the harbour porpoise (S57, S59, S61).

² In the end, this was not included in the 'Action Points from JG18'.

The 3rd HELCOM Holistic Assessment (hereinafter “HOLAS 3”) included eutrophication, biodiversity, hazardous substances, economic and social analyses, and spatial pressures and impacts. As such, similarities could be observed between HOLAS 3 and the BSAP. The assessment period of HOLAS 3 is 2016-2021, and the final report as well as the data will be made available in 2023. Mr. Florent reported that HOLAS takes place every six years. It is supported by different projects, including HELCOM Blues which is co-funded by the European Union. HELCOM Blues provides support to the HOLAS 3 on biodiversity, litter, underwater noise, and effective regional measures for the Baltic Sea Area.

With regard to the harbour porpoise, some of the work carried out by the State and Conservation WG involved the harmonisation between HELCOM and OSPAR for the assessment of trends in abundance for the Belt Sea population, as well as expert-based qualitative assessments of abundance and distribution for the Baltic Sea proper population.

The status of HELCOM work on underwater noise could be summarised as follows:

- The Head of Delegations (HODs) provisionally adopted the threshold values/threshold value setting methodologies and provisionally approved, noting the study reservations by Denmark and Russia, the approach for the continuous low frequency anthropogenic sound indicator use in HOLAS 3, as outlined [here](#);
- HODs agreed on the following process for the indicator ‘Distribution in time and space of loud low- and mid-frequency impulsive sounds’: should threshold values be approved at the EU level in time to be applied in HOLAS 3 these should be used. Should EU-level threshold values not become available in time for them to be used in HOLAS 3 a qualitative indicator evaluation should be undertaken for HOLAS 3. See methodology for the assessment [here](#);
- There are [HELCOM monitoring guidelines for continuous noise](#) available, as well as monitoring programmes for [continuous](#) and [impulsive](#) noise. National monitoring data is uploaded to the respective [continuous](#) and [impulsive](#) noise databases hosted by ICES;
- Work is ongoing towards the development of the assessment of underwater noise for HOLAS3 in the frame of A4 of the [HELCOM BLUES project](#), in cooperation with EU TG Noise.

A question was raised about the consequences if a country did not adhere to the timelines given in the BSAP. Mr. Nicolas responded that the action in question would then likely be postponed. It could also be that some actions are too ambitious and cannot be completed or completed on time. Another question was raised as to whether there was a prioritisation of the actions seeing as there were so many. Mr. Nicolas noted that some of the actions are more urgent than others, but there was no inherent prioritisation of actions. A question was raised on whether HELCOM groups worked on how to approach the actions, their order, or work on specifying the actions further. Mr. Nicolas replied that the working groups and expert groups have work plans to drive their work, and that they define which actions have to be prioritised. The Chair and Ms. Kaminska pointed out that some HELCOM WGs are thinking about and proposing how the actions can be best completed.

3.3. Results of Mini-SCANS II and national monitoring

Ms. Sveegaard gave a presentation on [MiniSCANS-II](#). The survey was carried out June-July 2020 and covered more than 50,000 km² and circa 5,300 km on effort. There were 224 harbour porpoise sightings within this time period, 20 of which were calves. The mean size of groups was 1.22. These were very comparable to previous surveys. The abundance estimate was 17,301 harbour porpoises. Compared to the abundance estimates from previous surveys, this number was lower. For instance, the SCANS survey of 1994 had an abundance estimate of 51,660, and the MiniSCANS of 2012 had an abundance estimate of 40,475. Unfortunately, it was not possible to compare these numbers directly due to the difference in the area surveyed. Similarly, the effort had also differed over the surveys, as has the coefficient of variation (CV).

An abundance graph was used in the SCANS-III report of 2016, whereas a density graph was used in the MiniSCANS-II report of 2020. With regard to distribution, there were some thoughts about discrepancies in the data. MiniSCANS-II showed differences from previous surveys and previously

low density. The narrow straits of the Belt channels where there was current, upwelling, would normally attract porpoises but none were observed. Fishermen didn't see any porpoises in the area in the first half of 2020. Comparing these numbers to the MiniSCANS report of 2012, the same area had many more porpoises. Satellite data has shown that it is very rare for a lot of porpoises to move temporarily out of an area and then return. Therefore, half of the porpoises could have not moved, comparing from 2016 to 2020. Something was happening. Nevertheless, since MiniSCANS-II has low CV, it could be the most precise abundance data available. Ms. Sveegaard added that the area would be included in SCANS-IV, which would be done by aerial survey in 2022, so a new abundance estimate would be available then.

A question was raised on whether there was a correlation between the increase of tourists on the waters due to COVID-19 and the abundance of porpoises, and whether this correlation would be taken into consideration. Ms. Sveegaard replied that there was no data on this, but the abundance estimates obtained were considered reliable.

Karl Norling (Sweden) asked about Ms. Sveegaard's thoughts on Sweden altering stations in different detection areas, as well as her thoughts on whether there should be long time series in all places. Ms. Sveegaard responded that it depended on what the places looked like, and explained that they had to move certain data in Denmark because the variation and low density were in the way of getting reliable trends in those areas. She mentioned that it was difficult to get a significant comparison in the Baltic area when there is few data and low density.

3.4. OSPAR approach for bycatch threshold setting

Kylie Owen (Sweden) presented on the topic of [Estimating a mortality threshold for the Belt Sea population of harbour porpoises](#). Mortality limits were needed for management of species under D1C1 of the Marine Strategy Framework Directive (MSFD). The mortality threshold project was implemented through SwAM, and supported indicator development within HELCOM for HOLAS III. There were three different ways mortality rates can be calculated. Firstly, through the removal limit algorithm (RLA) which requires a time series of bycatch data which is unavailable for the Belt Sea population. Therefore, it cannot be used at this stage. The second way was through the potential biological removal (PBR). This method was developed under the United States Marine Mammal Protection Act, where the population has to achieve the objective that maximum net productivity level (MNPL) is able to remain there for twenty years, and 30% carrying capacity is able to reach MNPL in 100 years. The third way mortality rates can be calculated is through the set percentage of the population size. However, there were issues with this approach since it doesn't take population dynamics and population differences in demography into account, doesn't factor in potential sources of biases into the calculation, and doesn't work towards any given conservation objective.

Within the European region, there is the ASCOBANS conservation objective to which all countries have agreed. The conservation objectives for harbour porpoises indicated that harbour porpoise populations should be kept at or restored to 80% of their carrying capacity. However, there was no set time frame for this or level of certainty assigned to this objective. The ASCOBANS Resolutions 3.3, 5.5 and 8.5 (Rev.MOP9) also state that the bycatch of harbour porpoises should be reduced to <1% of the best available population estimate as an "intermediate precautionary aim", and that above 1.7% of bycatch of the population is "unacceptable interaction". HELCOM had set the threshold for the number of drowned mammals and waterbirds in fishing gear as 1% of the population size. However, there was still a need for modelling that takes demography and sources of bias into account. A study by Genu et al. (2021)³ modified the PBR method to adhere to the ASCOBANS conservation objective, and made the assumption that the ASBOCANS objective needs to be achieved with 80% certainty within 100 years. This 100-year limit also aligns with the United States Marine Mammal Protection Act.

³ Genu M., Gilles A., Hammond P.S., Macleod K., Paillé J., Paradinas I., Smout S., Winship A.J., Authier M. (2021) Evaluating Strategies for Managing Anthropogenic Mortality on Marine Mammals: An R Implementation with the Package RLA. *Frontiers in Marine Science* 8: 795953. Bycatch in Baltic Sea commercial fisheries: High-risk areas and evaluation of measures to reduce bycatch. HELCOM ACTION (2021).

The aim of the work on estimating mortality thresholds was to calculate the modified PBR (mPBR) mortality limit for the Belt Sea population of harbour porpoises, and to propose a new threshold for the HELCOM indicator on bycatch for this population.

The conclusion was that the mortality limit for the Belt Sea harbour porpoise population is 29 individuals. Ms. Owen proposed that this should be the threshold used by HELCOM in HOLAS III for the Belt Sea harbour porpoise population. Nevertheless, the correct number of bycatches would need to be known to make this assessment accurately.

Ms. Königson asked whether the abundance estimate of 17,000 should be used in the calculations when only a few years ago the abundance estimates showed harbour porpoise populations to be in the 40,000s, and whether the latest estimates can be trusted. Ms. Owen responded that the simulations look at the demographics of the population and how quickly they can recover. If the largest abundance estimate of the population is applied into the model with a recovery factor of 0.1, the mortality limit of the animals is obtained. She noted that whichever survey results were used calculations show that bycatch is too high.

Ms. Owen added that the most recent and best available information on abundance was used, and those that completed the abundance survey had confidence in that number. She further remarked that, based on the precautionary conservation approach, the latest numbers should not be presumed wrong just because they are small.

3.5 Updates on recent research

Harbour porpoise behaviour: group hunting and continued research using drones

by Johanna Stedt (Invited Expert)

Ms. Stedt acknowledged the collaborative effort to obtain the drone data: Data had been collected in Magnus Wahlberg's research group by Sara Torres Ortiz and Héloïse Hamel at the University of Southern Denmark. Drones, also referred to as UAVs or unmanned aerial vehicles, are a result of continuous technological developments that provide new possibilities and perspectives to study marine mammals, for example behaviour, condition of animals, studies of health status and photo identification. For harbour porpoises, perhaps one of the hardest to study, drone data was very helpful. All data had been processed manually (watching video footage).

Ms. Stedt explained that the topic of her PhD thesis was on harbour porpoise foraging behaviours and techniques, as well as their interaction with prey. In shallow waters, harbour porpoises used a different hunting technique than in deep waters, and hunting methods also depended on whether it's a single harbour porpoise or a group. This is perhaps unsurprising given that porpoises are known to be opportunistic hunters. That being said, there had not been the possibility to study these behaviours before. She also noted that harbour porpoises seemed to be collaborating when hunting a school of fish.

Ms. Stedt remarked that harbour porpoises seemed to be capable of sophisticated collaborative behaviours when hunting with role specification in schools of fish, which might suggest that they are more social than previously thought. This would then open up the possibility of collaboration in other seemingly non-social species. Ms. Stedt observed that this knowledge of the foraging behaviour of harbour porpoises and their interaction with prey could contribute to reducing conflict with fishing activities and the risk of by-catch.

A question was raised whether solitary hunting behaviour or joint hunting behaviour was more common among harbour porpoises. Ms. Stedt replied that the data had more group hunting, but there were also many events with single porpoises hunting. Additionally, the porpoises hunted schools of fish as well as individual prey, and it was also observed that porpoises hunted by scanning the bottom and going down to catch the prey.

A question was asked on whether the foraging behaviours were personal traits, if they occurred randomly, if young porpoises could do them, or whether it was dependent on the level of experience of the porpoise. Ms. Stedt responded that in the sequences that was analysed, the behaviours that can be interpreted as more complex, such as the splitting) of the school or crossing, seemed to be made by the same individual which might suggest that it is the most difficult behaviour. However, Ms. Stedt added that the analysis did not look into age groups which would require more data.

Another question was raised about whether hunting behaviour was actually collaborative or cooperative hunting, or whether it was individuals herding prey and other lazy individuals wanting to take advantage. Ms. Stedt stated that all porpoises seemed to be doing something in the hunt. She added that there were sequences with mothers and calves which were not included in the analysis, but it showed calves as being more observant than adult individuals, which might suggest they were learning. There were also examples of sequences with multiple porpoises where two went away only to return to engage with a school of fish that suddenly appeared, and the remaining porpoises came from different directions and joined in the hunt. It seemed like they were in acoustic communication with each other that they found a school. Or, it might have been that they were listening in and joined. This distinction was not known at the moment.

To a question on if there were any similar projects in the North Sea population of harbour porpoises to see if populations evolved in different behaviours, Ms. Stedt answered that she was not aware of other studies of harbour porpoises but there was work on other species with the use of drones. Another participant added that they were currently comparing mating behaviours of harbour porpoises with ones in San Francisco to observe whether there were behavioural differences. Ms. Stedt noted that the information in the presentation were published, but there were more data coming in so there might be further publications on the topic.

SNP genetic analysis for harbour porpoise population assignment

by Enrique Celemin Amaro (Invited Expert)

The preliminary results of Mr. Celemin Amaro's research showed that there are three distinct harbour porpoise populations in the Baltic Sea Region. He added that his project had recently received more funding from the Nature Conservation Agency of Germany (BfN), and they would be able to extend the research in order to get more precise results.

A question was raised on the origins of the sampled animals. Mr. Celemin Amaro said the samples were from dead animals caught in nets or stranded, however the exact coordinates of where stranded animals died and when were unknown. Mr. Norling pointed out the importance of adding information such as location and circumstance of death, in order to understand how it happened. Mr. Celemin Amaro mentioned he could prepare a map from bycaught individuals in the future, but not from stranded animals.

There was discussion about removing some kinds of data, such as females, mature animals, or bycatch at the time, to see how each factor influenced the results. Mr. Celemin Amaro's study identified important aspects regarding population abundance and occurrence, which could guide management in those areas, including the evidence of the Baltic Proper moving further into the Belt Sea than previously thought.

4. Update on the status of the draft proposal to list the Baltic Proper harbour porpoise to CMS Appendix I

Penina Blankett (Finland) reported that Sweden and Finland had previously agreed to bring the proposal to list the Baltic Proper harbour porpoise on the CMS Appendix I to the EU coordination. Finland confirmed that they were prepared to proceed. The next steps would be to contact CMS Focal Points as well as the ASCOBANS ones, therefore a contact list would be updated in order to facilitate the process. The email and proposal drafts were ready and waiting for a deadline to be decided. Ms. Viker said that they were still waiting for confirmation on whether Sweden could share the task and

bring the proposal forward together with Finland, but they expected to know in the following days or weeks.

The Secretariat mentioned that at AC26, the EC informed that they required the proposals be submitted for EU coordination 10 months before CMS COP. The group agreed to have something ready by the end of the month, so there would be extra time if needed.

5. Planned review of the Jastarnia and WBBK Plans

The Chair invited the group to discuss a possible revision of the conservation plans of both Jastarnia and Western Baltic, including a timeframe. She reminded the group that the Jastarnia Plan was last revised in 2016 and the WBBK Plan in 2012. Since new development had happened to bycatch mitigation for instance, an update may be useful. The discussion should also focus on the need for a consultant and the availability of funding. In case the group agreed that a consultant would be needed, the Secretariat advised them to propose it to the AC as a priority.

Regarding the timeframe, it was agreed that they should focus on the WBBK Plan because it is the older plan, and the revision the Jastarnia Plan would be good to do after SAMBAH II - which was currently not going ahead, though. The revision of the WBBK Plan would be brought to the next AC meeting in September for approval, so they could plan the revision for the winter of 2023/24. While it should be focused on bycatch, it would be interesting to add effects of mitigation on underwater noise. The Chair noted that when the plans are being updated, the limits between the plans should also be updated as agreed during the last North Sea Group meeting.

The Chair noted that HELCOM would probably appreciate any conservation plans from the JG on porpoises, since the Jastarnia Plan is often referred to in HELCOM documents. If that was the case, she believed it would be relevant to have both Plans updated by 2027.

Assessment Criteria

As mentioned earlier in the meeting, the Chair recommended the group to revise the status assessment criteria of both Jastarnia and WBBK Plans. She compared their criteria with the North Sea Group criteria and compiled the relevant differences into one document, which was shared on screen with the participants.

6. Review and update of Action Points

The Chair reviewed each of the 22 [Action Points from JG17](#) with all participants. Some Action Points were not modified, some were updated or deleted, and seven new ones were created. The finalised document, endorsed by the AC, can be found [online](#) and in Annex 1 of this report.

7. Any other business

Draft letter on underwater explosions

The Chair reminded that it is a one-page letter about underwater explosions. This letter (see Annex 2, JG18 Action Point 25) should have been then sent to the Ministries of Defence and the military forces containing more information on how to mitigate the problem, but was not yet sent. After discussion, some participants questioned the relevancy and urgency of the letter, when other topics, such as pingers, were more controversial and should be given more attention. The Chair mentioned that AC26 had proposed that pingers would be addressed in a workshop with representatives of national navies and NATO.

Participants agreed on a hard deadline of two weeks to finish preparing the letter, using a shared document in Google Docs. In addition, since the letter addressed harbour porpoises, it was agreed that the letter should be first included in the JG Acton Point, to be sent to the AC for intersessional endorsement, and then sent to the Baltic countries.⁴

8. Date and venue of the 19th Meeting of the Jastarnia Group

The next meeting of the Jastarnia Group was decided to be held online from 20 to 22 March 2023. The decision was taken by JG a couple of years earlier to alternate between online and in-person meetings.

9. Close of the meeting

Following the customary expression of thanks to the hosts for providing the venue and for organising the catering, and all those that had contributed to the success of the meeting, the Chair declared proceedings closed at 12:20 CEST on 30 March 2022.

⁴ In the end, this letter was not included in the 'Action Points from JG18'.

Annex 1:

Action Points from the 18th Meeting of the Jastarnia Group

(Adopted by the Advisory Committee)

Reference	Action Point (and old reference)	Jastarnia Plan		WBBK Plan	
		Applies	Mandate	Applies	Mandate
JG18/AP1	Parties shall establish or further improve local and national monitoring programmes for Harbour Porpoise abundance and occurrence and to further ensure these are aligned in terms of timing and methodology between countries, in order to complement large-scale international monitoring activities. (JG17/AP1)	X	MON-01: Implement and harmonize long-term continual acoustic Harbour Porpoise monitoring	X	Objective d: Monitoring the status of the population
JG18/AP2	All Parties, and other countries bordering the Baltic Sea, are strongly encouraged to support SAMBAH-II, specifically in terms of fundraising, in order for a project proposal to be submitted as soon as possible. Noting that management authorities may be required to be formal partners for a re-application. (updated JG17/AP2)	X			
JG18/AP3	Parties are strongly encouraged to continue to undertake and cooperate on the SCANS surveys, including the upcoming SCANS IV, planned for 2022. (JG17/AP3)			X	Rec.7: Estimate trends in abundance of Harbour Porpoises in the Western Baltic, the Belt Sea and the Kattegat
JG18/AP4	Parties are strongly encouraged to use the data provided by SAMBAH, national monitoring programmes, acoustic research projects and any other available data, in connection with the establishment and evaluation of MPAs for Harbour Porpoises, as well as with regard to management plans and mitigation measures. (updated JG17/AP4)	X	MIT-06: Expand the network of protected areas for Harbour Porpoises, improve its connectivity, and develop and implement appropriate management plans including monitoring schemes for these areas		
JG18/AP5	Parties should investigate possible detrimental effects of various types of sound and disturbance on Harbour Porpoises and their detection (including pinger signals, noise from vessels, seismic surveys, underwater explosions, wind parks or construction). Parties should initiate and support studies on the effect of anthropogenic noise on the Harbour	X	RES-07: Improve knowledge on impact of impulsive and continuous anthropogenic underwater noise on Harbour Porpoises, and development of	X	Objective e: Ensuring habitat quality favourable to the conservation of the Harbour Porpoise

	Porpoise both on the individual and on a population level. (JG17/AP5)		threshold limits of significant disturbance and GES indicators		
JG18/AP6	Parties are encouraged to seek cooperation with the HELCOM EN NOISE to develop HELCOM-wide harmonized national regulations on sound emissions associated with anthropogenic activities in the marine environment. Such regulations should set upper limits to sound emissions and be consistent with the relevant Indicators for Good Environmental Status to be developed for the Marine Strategy Framework Directive. Parties are also encouraged to develop HELCOM-wide coordinated guidelines for noise mitigation, taking into account the CMS Family Guidelines on Environmental Impact Assessments for Marine Noise-generating Activities. (JG17/AP6)	X	MIT-05: Implement regionally harmonized national threshold limits and guidelines for regulation of underwater noise	X	Rec. 11: Restore or maintain habitat quality
JG18/AP7	Parties are required to establish systems to effectively monitor bycatch covering all sizes of fishing vessels, in line with the HELCOM Roadmap on fisheries data in order to assess incidental bycatch and fisheries impact on benthic biotopes in the Baltic Sea and the ICES Special Request Advice on emergency measures to prevent bycatch of common dolphin and Baltic Proper harbour porpoise in the Northeast Atlantic. (JG17/AP7)	X	MON-03: Monitor and estimate Harbour Porpoise bycatch rates and estimate total annual bycatch	X	Rec.6: Estimate total annual bycatch
JG18/AP8	Parties are strongly encouraged to carry out spatio-temporal risk-assessments of Harbour Porpoise bycatch using Harbour Porpoise distribution and fishing effort data. (JG17/AP8)	X	RES-04: Carry out a spatio-temporal risk assessment of Harbour Porpoise bycatch	X	
JG18/AP9	Parties should implement and where needed further develop, in cooperation with stakeholders, any available fishing gear that does not cause, or is shown to significantly reduce, harbour porpoise bycatch, and strive to replace static nets with such alternative gear, especially in MPAs, as soon as possible. (JG17/AP9)	X	RES-05: Further develop and improve fishing gear that is commercially viable with no Harbour Porpoise bycatch MIT-01: Implement the use of fishing gear that is commercially viable with no Harbour Porpoise bycatch	X	Objective b: Mitigation of bycatch
JG18/AP10	When alternative gear is not sufficient to eliminate harbour porpoise bycatch, Parties should promote the	X	RES-05: Further develop and improve fishing gear that is	X	Objective b: Mitigation of bycatch

	use and further development of pingers not audible to seals and alerting devices other than pingers. (updated JG17/AP10)		commercially viable with no Harbour Porpoise bycatch		
JG18/AP11	Parties should monitor the use and functioning of dedicated harbour porpoise deterrent and alerting devices, including studies to assess their effect on bycatch reduction and on harbour porpoise behaviour and distribution, as well as their possible interference with military underwater acoustic activities. (updated JG17/AP11)	X	MIT-03: Continue or implement the use of acoustic deterrent devices (pingers) and acoustic alerting devices proven to be successful when and where deemed appropriate RES-06: Improve the knowledge on potential population-level effects of the use of pingers, and develop acoustic devices for bycatch mitigation further	X	Rec. 9: Ensure a non-detrimental use of pingers by examining habitat exclusion and long-term effects of pingers
JG18/AP12	With respect to recreational fisheries, Parties should work towards banning or limiting the use of those types of gear known to pose a threat to harbour porpoises, or introduce effective mitigation measures shown to significantly reduce or eliminate bycatch. (JG17/AP12)	X	MIT-02: Reduce or eliminate fishing effort with gillnets or other gear known to cause porpoise bycatch in areas with higher Harbour Porpoise density or occurrence, and/or in areas with higher risk of Harbour Porpoise bycatch, according to spatio-temporal risk assessments	X	Rec.3: Protect Harbour Porpoises in their key habitats in minimizing bycatch as far as possible Rec.5: Where possible replace gillnet fisheries known to be associated with high porpoise bycatch with alternative fishing gear known to be less harmful
JG18/AP13	Parties are encouraged to coordinate and standardize monitoring of stranded and bycaught animals, determining the appropriate number of animals to be necropsied in each country, ensuring that health, contaminant load, life-history parameters and cause of death is examined in a coherent manner, and that tissue samples are collected from all carcasses from the Baltic Proper harbour porpoise distribution range. All necropsies and sampling should be carried out in accordance with the ASCOBANS-ACCOBAMS <i>Best practice on cetacean post-mortem investigation and tissue sampling</i> . (updated JG17/AP13)	X	MON-04: Collect dead specimens and assess health status, contaminant levels, cause of mortality and life-history parameters of Harbour Porpoises	X	Rec.8: Monitor population health status, contaminant load and causes of mortality
JG18/AP14	All Parties and Range States should establish programmes for recording bycatch, strandings and opportunis-	X	PACB-01: Improve communication and education for in-	X	Objective d: Monitoring the status of the population

	tic sightings for inclusion in a national database, and report annually to the ASCOBANS/HELCOM database. (JG17/AP15)		creased public awareness and collection of live observations and dead specimens of the Baltic Harbour Porpoise		
JG18/AP15	ASCOBANS should join efforts with HELCOM to liaise with the European Commission and other relevant bodies to improve the implementation by Member States of the EU Technical Measures Regulation and the Data Collection Framework to better incorporate and tackle by-catch concerns. (JG17/AP16)	X	COOP-02: Strive for close cooperation between ASCOBANS and other international bodies	X	Rec.2: Cooperate with and inform other relevant bodies about the Conservation Plan
JG18/AP16	Parties should ensure that Belt Sea and Baltic Sea populations of harbour porpoises are assessed and managed as separate populations, e.g. in management plans and national redlists. (JG17/AP17)	X	Other	X	Other
JG18/AP17	Countries who have raised concerns on possible interference of acoustic deterrent devices on military underwater acoustic activities, are strongly called to investigate the extent of the issue, to ensure that any decisions are based on evidence that is strong enough to justify any negative impact on the Baltic Proper harbour porpoise population or the fishing industry. (JG17/AP18)	X	MIT-03: Continue or implement the use of acoustic deterrent devices (pingers) and acoustic alerting devices proven to be successful when and where deemed appropriate		
JG18/AP18	Given that the ICES Special Request advice states that even 100% fulfilment of the advice is not enough to reach the PBR limit of 0.7 animals/year, the Jastarnia Group also urges for swift implementation of the recommendations on measures for bycatch mitigation made by ICES in areas of more than occasional Harbour Porpoise occurrence, in further steps as soon as possible. (updated JG17/AP19)	X	Objective: Monitor, estimate and reduce bycatch		
JG18/AP19	Countries are urged to, without delay, prepare a BALTFISH Joint Recommendation that includes effective bycatch mitigation measures outside MPAs, in areas of more than occasional harbour porpoise occurrence, noting that coastal habitats are also of high importance for harbour porpoises. It is noted that the real-time closures/moving-on procedure is not considered a measure	X	Objective: Monitor, estimate and reduce bycatch		

	to mitigate harbour porpoise bycatch in the Baltic Proper, and may be counterproductive because it prevents effective measures being taken. (updated JG17/AP20)				
JG18/AP20	Parties are urged to ensure a proposal to list the Baltic Proper harbour porpoise in CMS Appendix I is brought to CMS COP14 in 2023. (JG17/AP21)	X	Other		
JG18/AP21	It was agreed that the delimitation between the North Sea and WBBK harbour porpoise plans should be the management unit border identified by Sveegaard et al 2015 in Kattegat at 56.95°N. The area for the WBBK should have its eastern delimitation at the management unit border identified by Sveegaard et al 2015 at 13.5°E, while the Jastarnia plan area should be east of 13.0°E, according to the ICES scientific advice of May 2020. The overlap of the WBBK and Jastarnia plans areas will be considered in the Jastarnia Group's discussions of the plans. (JG17/AP22)	X	Other	X	Other
JG18/AP22	Parties are recommended to consider the bycatch risk maps produced during the HELCOM ACTION project and the upcoming risk maps from the HELCOM BLUES project to determine additional areas for bycatch mitigation for the Baltic Proper population. In the absence of pinger use, the only immediate mitigation measure possible to protect harbour porpoises is further closures of static net fisheries in areas of importance to harbour porpoises. In these areas, gear types known to not cause bycatch of harbour porpoises (such as pots, traps, and long lines) can be used.	X	RES-04: Carry out a spatio-temporal risk assessment of Harbour Porpoise bycatch Objective: Monitor, estimate and reduce bycatch		
JG18/AP23	HELCOM BLUES is encouraged to prioritise the work on bycatch risk maps for the Baltic Proper harbour porpoise. The outcomes to be considered by countries to take further bycatch mitigation measures.	X	RES-04: Carry out a spatio-temporal risk assessment of Harbour Porpoise bycatch Objective: Monitor, estimate and reduce bycatch		
JG18/AP24	It is recommended that a representative from the Jastarnia Group as well as relevant experts be invited to the workshop(s) agreed by	X	Action MIT-05: Implement regionally harmonized national threshold limits and		Rec.11: Restore or maintain habitat quality

	ASCOBANS AC26 to consider navies' mitigation practice in the use of military sonar and management of other activities that can contribute to potentially harmful underwater noise, including the removal and/or detonation of UXO; and solutions for acoustic monitoring and bycatch mitigation (deterrent devices) in synergy with national security activities (see AC26 AP3).		guidelines for regulation of underwater noise		
JG18/AP25	Jastarnia Group to send a letter (signed by the Chair) to all Baltic Proper Range States and their national navies, raising concern of the effect of underwater explosions to harbour porpoises, and to inform them about effective mitigation measures.* (JG17 Internal AP2)	X	Action MIT-05: Implement regionally harmonized national threshold limits and guidelines for regulation of underwater noise		
JG18/AP26	Parties and Range States are strongly encouraged to financially support the CIBBRiNA Life project on mitigating bycatch.	X	Objective: Monitor, estimate and reduce bycatch	X	Rec.3: Protect Harbour Porpoises in their key habitats in minimizing bycatch as far as possible
JG18/AP27	AC27 is requested to discuss the topic of rapid growth of construction for offshore energy production, and Parties and Range States to consider harbour porpoise conservation needs during offshore energy development.	X	Action MIT-05: Implement regionally harmonized national threshold limits and guidelines for regulation of underwater noise	X	Rec.11: Restore or maintain habitat quality
JG18/AP28	AC27 is requested to make funding available for a consultant to do the revision of the <i>Conservation Plan for the Harbour Porpoise Population in the Western Baltic, the Belt Sea and the Kattegat</i> , so that an advanced draft is ready by AC28 in 2023.			X	Other
JG18/AP29	AC27 is requested to give guidance on the procedure for its working groups, including JG, to provide advice on urgent matters to relevant stakeholders.	X	Other	X	Other

* Timing to be discussed at the 27th Meeting of the Advisory Committee (AC27).

Annex 2:

Updated status assessment criteria for progress on the implementation of the actions of the Jastarnia Plan

1. Implementation of the CP: co-ordinator and Steering Committee

Yes/No

2. Increase involvement, awareness and cooperation

Public awareness

0 – No activity

1 – Occasional and/or local campaigns informing about BS hp

2 – Nation-wide communications campaign has taken place, but not continuously

3 – Ongoing and continuous nation-wide information campaign, information on strandings scheme and reporting of observations available on well-established website

Involvement and cooperation

N.A. – not applicable

0 – No activity

1 – Occasional dialogue meetings for certain issues but no established groups

2 – Dialogue/reference groups established to involve stakeholders in management of some protected areas or to mitigate bycatch in some of the distribution range

3 – Dialogue/reference groups established to involve stakeholders in management of all protected areas and bycatch mitigation in the entire distribution range

3. Monitor and estimate abundance and distribution

Population-wide (including modelling)

N.A. – Not applicable

0 – No activity

1 – Surveys carried out every 10-12 years, results with wide confidence intervals of $CV > 0.4$, distribution maps showing probability of detection

2 – Surveys carried out every 10-12 years, more narrow confidence intervals of abundance estimates with $CV > 0.2$ to 0.4 , maps of harbour porpoise density

3 – Surveys carried out every 6 years, even more narrow confidence intervals of abundance estimates with CV of ≤ 0.2 , maps of harbour porpoise density

Regional/national monitoring

N.A. – Not applicable

0 – No activity

1 – Some monitoring going on, at local/national scale, not continuously, covering HELCOM key sites where possible (see HELCOM indicator work)

2 – Continuous (year round) monitoring for at least two years every six years covering HELCOM key sites where possible

3 – Continuous (year round) monitoring for the entire six-year cycle, covering HELCOM key sites where possible

Population structure in the Baltic region

N.A. – Not applicable

0 – No activity

1 – Samples collected from some carcasses found within the distribution range of the Baltic Proper population, but no analysis

- 2 – Samples collected from some carcasses found within the distribution range of the Baltic Proper population, some analysis completed (genetics, life history, morphometrics etc.)
- 3 – Samples collected from over 90% of carcasses found within the distribution range of the Baltic Proper population, and all possible analyses completed (genetics, life history, morphometrics etc.)

4. Bycatch

Monitoring bycatch

N.A. – Not applicable

0 – No activity

1 – Some assessment of bycatch rates (e.g. questionnaire surveys, sample surveys) (under Reg. 2019/1241 or equivalent)

2 – Bycatch monitoring of part of relevant fisheries (under Reg. 2019/1241 or equivalent) resulting in an estimate of bycatch rates

3 – Bycatch monitoring in all relevant fisheries (under Reg. 2019/1241 or equivalent) resulting in a robust estimate of bycatch rates

Estimating bycatch

N.A. – Not applicable

0 – No estimates available

1 – Estimate of bycatch available from research project, for part of the fisheries

2 – Estimate of bycatch available for >50% of relevant fisheries

3 – Robust estimate of total bycatch available for all relevant fisheries

Reducing bycatch

N.A. – Not applicable

0 – No activity

1 – Research and pilot projects ongoing on measures and activities that would reduce bycatch of harbour porpoises

2 – Some reduction in total bycatch but threshold not reached

3 – Bycatch threshold reached

5. Monitor and mitigate impact of underwater noise

Improve knowledge on impact of underwater noise and develop threshold limits for disturbance

N.A. – Not applicable

0 – No activity

1 – Research projects in place to improve knowledge on impact of underwater noise

2 – Threshold limits of disturbance in place for continuous **or** impulsive underwater noise.

3 – Threshold limits of disturbance in place for continuous **and** impulsive underwater noise.

Mitigating effects of continuous noise (e.g. shipping)

N.A. – Not applicable

0 – No activity

1 – Mitigation measures to reduce continuous noise (e.g. quieting technologies, speed restrictions, re-routing vessels) under development or being tested

2 – Mitigation measures to reduce continuous noise (e.g. quieting technologies, speed restrictions, re-routing vessels) in place to some extent. National and/or HELCOM guidelines under development.

3 – Mitigation measures to reduce continuous noise (e.g. quieting technologies, speed restrictions, re-routing vessels) routinely in place. National and/or HELCOM guidelines in place.

Mitigating effects of impulsive noise (e.g. seismic, sonar, explosions, piling)

N.A. – Not applicable

0 – No activity

1 – Mitigation measures to reduce impulsive noise (e.g. soft starts, bubble curtains, insulation casings) under development or being tested

2 – Mitigation measures to reduce impulsive noise (e.g. soft starts, bubble curtains, insulation casings) in place to some extent. National and/or HELCOM guidelines under development.

3 – Mitigation measures to reduce impulsive noise (e.g. soft starts, bubble curtains, insulation casings) routinely in place. National and/or HELCOM guidelines in place.

6. Monitor and assess population health status

N.A. – Not applicable

0 – No activity, no plan or guidance on how to act in case of a stranding

1 – Samples collected from some carcasses from within the distribution range of the Baltic Proper population, no analysis carried out

2 – Some analysis and assessments completed on certain organs or tissues, and/or some necropsies carried out

3 – Full necropsies (according to ASCOBANS protocol) conducted for >90% of carcasses in good enough condition, and samples analysed for health indicators, e.g. contaminant levels and life history parameters. Regular (at least every 6 years) assessments of results

7. Investigate habitat use and protect important areas

Investigating habitat use

N.A. – Not applicable

0 – No activity

1 – Research projects ongoing on spatiotemporal distribution

2 – Spatiotemporal distribution has been mapped and important areas identified in parts of the population range, within the last 10-12 years

3 – Spatiotemporal habitat use has been mapped and important areas identified at a broad scale in the entire population range, and at a fine spatial scale in important areas, within the last 10-12 years

Protecting important areas

N.A. – Not applicable

0 – No harbour porpoise important areas designated as MPAs or other conservation measures introduced

1 – Some important areas designated as harbour porpoise MPAs

2 – Some important areas protected with conservation measures in place

3 – All harbour porpoise important areas protected (effective protective measures in place)

Annex 3:

Updated status assessment criteria for progress on the implementation of the actions of the Western Baltic, Belt Sea, and the Kattegat (WBBK) Plan

- 1. Implementation of the CP: co-ordinator and Steering Committee**
Yes/No

- 2. Actively seek to involve fishermen in the implementation of the plan and in mitigation measures to ensure a reduction in bycatch**
N.A. – Not applicable
0 – No activity
1 – Occasional dialogue meetings for certain issues but no established groups
2 – Dialogue/reference groups established to involve stakeholders in management of some protected areas and/or to mitigate bycatch in some of the distribution range
3 – Dialogue/reference groups established to involve stakeholders in management of all protected areas and bycatch mitigation in the entire distribution range

- 3. Cooperate with and inform other relevant bodies about the conservation plan**
N.A. – Not applicable
0 – No activity
1 – Few contacts with some national governments and/or other relevant national and international bodies
2 – Occasional contact with national governments and other relevant national and international bodies
3 – Continuous dissemination of the plan to national governments and other relevant national and international bodies

- 4. Protect harbour porpoises in their key habitats by minimising bycatch**
N.A. – Not applicable
0 – No activity
1 – Bycatch mitigation measures and/or ghostnet removal underway in some harbour porpoise MPAs and other key habitats
2 – Delegated acts in place, bycatch mitigation measures implemented and ghostnet removal completed for some harbour porpoise MPAs and other key habitats
3 – National regulation, management plans or delegated acts in place, measures on bycatch mitigation implemented and ghostnet removal carried out in all harbour porpoise MPAs and other key habitats

- 5. Implement pinger use in fisheries causing bycatch**
N.A. – Not applicable
0 – No activity
1 – Research projects on controlled pinger use underway
2 – Controlled pinger use in some high-risk fisheries
3 – Controlled pinger use mandatory in all high-risk fisheries

- 6. Replacement of high-risk gillnets with alternative gear**
N.A. – Not applicable
0 – No activity
1 – Research projects on development of alternative gear without bycatch underway

- 2 – Alternative gear without bycatch are available but not implemented in all active static net fisheries
- 3 – Use of alternative gear without bycatch implemented large-scale in all active static net fisheries

7. Estimate total annual bycatch

Estimate total annual bycatch

N.A. – Not applicable

0 – No estimates available

1 – Estimate of bycatch available from research project, for part of the fisheries

2 – Estimate of bycatch available for >50% of relevant fisheries

3 – Robust estimate of bycatch available for all relevant fisheries

Facilitate landing of bycaught harbour porpoises

0 – National and EU legislation does not allow landing of bycaught harbour porpoises

1 – National and EU legislation does not allow landing of bycaught harbour porpoises but there can be derogations from these rules

2 – National or EU legislation allow landing of bycaught harbour porpoises

3 – National and EU legislation allow landing of bycaught harbour porpoises

8. Estimate trends in abundance in the western Baltic, the Belt Sea and Kattegat

Population-wide (including modelling)

N.A. – Not applicable

0 – No activity

1 – Surveys carried out every 10-12 years, results with wide confidence intervals of $CV > 0.4$, distribution maps showing probability of detection

2 – Surveys carried out every 10-12 years, more narrow confidence intervals of abundance estimates with $CV > 0.2$ to 0.4 , maps of harbour porpoise density

3 – Surveys carried out every 6 years, even more narrow confident intervals of abundance estimates with CV of ≤ 0.2 , maps of harbour porpoise density

Identify a survey interval based on power analysis in relation to effort and statistical uncertainty, for population-wide surveys

0 – No survey interval identified

3 – Optimal survey interval identified

Regional/national passive acoustic monitoring

N.A. – Not applicable

0 – No activity

1 – Some monitoring going on, at local/national scale, not continuously, covering HELCOM key sites where possible (see HELCOM indicator work)

2 – Continuous (year round) monitoring for at least two years every six years covering HELCOM key sites where possible

3 – Continuous (year round) monitoring for the entire six-year cycle, covering HELCOM key sites where possible

Regional/national visual surveys and modelling

N.A. – Not applicable

0 – No activity

1 – Visual surveys taking place irregularly, no density modelling carried out

2 – Visual surveys and density modelling carried out at least every ten years

3 – Visual surveys and density modelling carried out at least every six years

- 9. Monitor population health status, contaminant load and causes of mortality**
 N.A. – Not applicable
 0 – No activity, no plan or guidance on how to act in case of a stranding
 1 – Samples collected from some carcasses from within the distribution range of the Belt Sea population, no analysis carried out
 2 – Some analysis and assessments completed on certain organs or tissues, and/or some necropsies carried out
 3 – Full necropsies (according to ASCOBANS protocol) conducted for 20 carcasses per year in good enough condition, and samples analysed for health indicators, e.g. contaminant levels and life history parameters. Regular (at least every 6 years) assessments of results
- 10. Ensure non-detrimental use of pingers by examining habitat exclusion and long-term effects of pingers**
 N.A. – Not applicable
 0 – No activity
 1 – Research projects underway on effects of pingers, such as habitat exclusion or habituation
 2 – Some results available, but not conclusive, on effects of pingers, such as habitat exclusion and habituation
 3 – Reliable results available on effects of pingers, such as habitat exclusion and habituation
- 11. Include monitoring and management of important prey species in national harbour porpoise management plans**
 N.A. – Not applicable
 0 – No activity
 1 – Knowledge available on the most important prey species for the Belt Sea harbour porpoise population, also non-commercial species and for harbour porpoises relevant sizes of commercial species, and the biology and distribution of those species
 2 – Measures taken to ensure availability of harbour porpoise prey species, also non-commercial and for harbour porpoises relevant sizes of commercial species, within harbour porpoise MPAs
 3 – Sustainable management of harbour porpoise prey species, also non-commercial and for harbour porpoises relevant sizes of commercial species, in the entire range of the Belt Sea harbour porpoise population
- 12. Restore or maintain habitat quality**
- Monitoring of continuous noise (e.g. shipping)**
 N.A. – Not applicable
 0 – No activity
 1 – Research projects in place to improve knowledge on impacts on harbour porpoises from continuous noise OR monitoring of continuous underwater noise and the impact on harbour porpoises in the area, is implemented to some extent
 2 – Research projects in place to improve knowledge on impacts on harbour porpoises from continuous noise AND monitoring of continuous underwater noise and the impact on harbour porpoises in the area, is implemented to some extent
 3 – Monitoring of continuous underwater noise and the impact on harbour porpoises in the area, is implemented in the harbour porpoise distribution range.
- Monitoring of impulsive noise (e.g. seismic, sonar, explosions, piling)**
 N.A. – Not applicable
 0 – No activity

- 1 – Research projects in place to improve knowledge on impacts on harbour porpoises from impulsive noise OR monitoring of impulsive underwater noise and the impact on harbour porpoises, are implemented to some extent
- 2 – Research projects in place to improve knowledge on impacts on harbour porpoises from impulsive noise AND monitoring of impulsive underwater noise and the impact on harbour porpoises, are implemented to some extent
- 3 – Monitoring of continuous underwater noise and the impact on harbour porpoises, are implemented in the harbour porpoise distribution range.

Mitigating effects of continuous noise (e.g. shipping)

N.A. – Not applicable

0 – No activity

1 – Mitigation measures to reduce continuous noise (e.g. quieting technologies, speed restrictions, re-routing vessels) under development or being tested

2 – Mitigation measures to reduce continuous noise (e.g. quieting technologies, speed restrictions, re-routing vessels) in place to some extent

3 – Mitigation measures to reduce continuous noise (e.g. quieting technologies, speed restrictions, re-routing vessels) routinely in place

Mitigating effects of impulsive noise (e.g. seismic, sonar, explosions, piling)

N.A. – Not applicable

0 – No activity

1 – Mitigation measures to reduce impulsive noise (e.g. soft starts, bubble curtains, insulation casings) under development or being tested, available mitigation methods used to some extent

2 – Mitigation measures to reduce impulsive noise (e.g. soft starts, bubble curtains, insulation casings) in place to some extent

3 – Mitigation measures to reduce impulsive noise (e.g. soft starts, bubble curtains, insulation casings) routinely in place

Annex 4: List of Participants

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