Agenda Item 2

Review of New Information on Threats and Other Issues Relevant to Small Cetaceans

National Report 4

2022 Annual National Report: Denmark

**Action Requested** 

Take note

Submitted by

Denmark



### 2022 ASCOBANS National Report

### 1 January – 31 December 2022

As outlined in ASCOBANS <u>Resolution 8.1 (Rev.MOP9)</u> National Reporting, this form will cover the year 2022 (Year 3), and the following topics included in the Annex to the Resolution, in addition to the standard Sections I (General Information) and VII (Other Matters):

- Cetacean watching industry (Section II B5)
- Recreational sea use (Section II B6)
- Other sources of disturbance (Section II B7)
- Pollution and hazardous substances (incl. microplastics) (Section II C10)
- Ship strikes (Section II C11)
- Climate change (Section II 12)
- Physical habitat change (Section II C13)
- Other issues (Section II C14)
- Protected areas (Section II E16)
- Education and outreach (Section VI A)

The national reports submitted will inform discussions at the 27<sup>th</sup> Meeting of the ASCOBANS Advisory Committee (26-28 September 2023).

- All questions apply to the reporting period from 1 January to 31 December 2022.
- Region in the tables refers to the sub-regions as defined by the HELCOM and OSPAR, and Areas refers to the sub-areas as defined by ICES. An overview and maps of these can be found in Annex A. Species can be chosen from the drop-down list provided, based on ASCOBANS species list, see Annex B.
- Throughout the form, please include relevant web links and add rows where applicable.
- The deadline for the submission of National Reports is 31 May 2023.

Where possible, National Coordinators should consult with, or delegate to, experts for particular topics so as to ease the reporting burden. The Secretariat has provided a list of potential country contacts as a starting point. Once the baseline information is in place, it should become easier to update in the future.

For any questions, please do not hesitate to contact the Secretariat.

### **High-level Summary of Key Messages**

#### In your country, for 2022 (Year 3), what does this report reveal about:

- 1. The most successful aspects of implementation of the Agreement? (list up to five items)
  - 6-10 cetacean safari operators are currently offering whale watching in Denmark, a code of conduct has been produced in 2022 and the industry seem to be sustainable.
  - Very few ship strikes have been documented in the annual necropsies (2 in 10 years)
  - Denmark has designated 35 Natura 2000 sites where harbour porpoises are forming part of the selection criteria.

#### 2. The greatest challenges in implementing the Agreement? (list up to five items)

- Not much is known about the impact on recreational sea use on cetaceans.
- There are no continuous monitoring of pollutants in small cetaceans in Denmark
- The future impact of climate change on cetaceans are unknown
- Multiple major wind farms are planned to be constructed in the upcoming years. It will be difficult to assess the cumulative impact of them all on cetaceans.
- There is a general lack of awareness in Denmark of the Baltic harbour porpoise
- 3. The main priorities for future implementation of the Agreement? (list up to five items)
  - For the Baltic Prober harbour porpoise: Lack of knowledge on current abundance and distribution as well as the Swedish military refusing permits for deploying passive acoustic equipment in the Swedish part of the Baltic Prober.
  - It is essential to get SAMBAH-II funded and begun asap and to find a permanent solution for future funding. It is not sustainable that scientist from all around the Baltic should spend so much time trying to get funding from EU or other sources. For the SCANS surveys covering the neighbouring populations, the funding is now covered by national funding.

### **Section I: General Information**

#### A. Country Information

#### 1. Name of Party / Non-Party Range State: Denmark

#### 2. Details of the Report Compiler

 Name: Signe Sveegaard

 Function: Senior advisor, PhD

 Organization: Department of Bioscience, Aarhus University

 Postal Address: Frederiksborgvej 399, 4000 Roskilde

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 Does the Report Compiler act as ASCOBANS National Coordinator (i.e. focal point)?

 □
 No

 ☑ Yes

#### 3. Details of contributor(s)

Topic(s) contributed to: Recreational sea use (6.) Name: Berit C. Kaae Function: Data and PPGIS mapping of coastal and marine recreation in Danish marine waters Organization: University of Copenhagen, IGN Postal Address: Rolighedsvej 23 Telephone: +45 3533 1811/ Mobil +45 5115-5180 Email: bck@ign.ku.dk

#### Section II: Habitat Conservation and Management (threats and pressures on cetaceans)

### B. Disturbance (incl. potential physical impacts)

### 5. Cetacean Watching Industry

**AIM:** to determine if the developing cetacean watching industry poses a threat to small cetaceans. Relevant Resolutions: 8.9, 6.1, 5.4

Whale and dolphin watching is a global industry that can provide socio-economic benefits to local communities by attracting tourism, as well as strengthening public awareness of conservation needs. However, it also has the potential of being harmful when it interferes with the behaviour of animals in their natural environment and may even lead to injury or death. As the cetacean watching industry is still scarcely developed in some countries, collecting this data now allows tracking the development of the industry.

It is of particular importance to ASCOBANS to obtain an overview of the current scale of the activities and to monitor the development of the industry in the future. This is done by quantifying the number and locations of operators, reporting negative interactions and providing information on the development and implementation of any guidelines regarding cetacean watching.

Filling out this section accurately and completely will help to detect any indications of potential threats, allow timely mitigation action and enable Parties and Non-Party Range States to work towards a coordinated approach regarding the development of cetacean watching guidelines in the Agreement Area.

Note: We are here only addressing commercial cetacean watching activities which take place from vessels and include viewing of small cetacean species. Operators are defined as those offering trips with a <u>primary focus</u>: they advertise specifically with the aim to see small cetaceans, or a <u>secondary focus</u>: they advertise either for other taxa, such as birds or seals, or large cetaceans, or more general for wildlife, but mention the opportunity to see small cetaceans.

#### Questions:

- 5.1. Do you have any commercial small cetacean watching industry operating in your country?
  - $\Box$  No. Go to Question 5.3.
  - ⊠ Yes.
- 5.2. Please identify the total number of operators conducting commercial cetacean watching in your country and provide details in the table below.
  - □ 0-5
  - ⊠ 6-10
  - □ 11-20
  - □ 21+

In the table, provide the sub-regions in which commercial cetacean watching takes place. Identify if small cetacean watching is a primary and/or secondary focus of the operators and, in the first case, what the target species are.

Overview of commercial small cetacean watching activities per sub-region. If necessary, add rows.

	Small cetacean watching			Link to website or contact details (include	
Region	Primary focus / target species		Secondary focus	information on ports and operators if available)	
H The Sound		HP Harbour porpoise		The Øresund Aquarium in Helsongør: https://www.oresundsakvariet.ku.dk/english/experie nces/safari/porpoise-safari/	

	Small cetacean watching		hing	Link to website or contact details (include
Region	Primary foc	us / target species	Secondary focus	information on ports and operators if available)
H Belt Sea		HP Harbour porpoise		Galeasen Aventura, https://aventura-lillebaelt.dk/
H Belt Sea		HP Harbour porpoise		MS Tunø, <u>https://www.aarhussailevent.dk/</u> Primary focus are seals
H Belt Sea		HP Harbour porpoise		Århus Sea Rangers, https://searangers.dk/
H Belt Sea		HP Harbour porpoise		Mira III; <u>https://www.mira3.dk/</u>
H Belt Sea		HP Harbour porpoise		Zille 1, https://www.havneguide.dk/sejlerparadiset- fyn/sejltur-paa-lillebaelt-med-zille-1
H Belt Sea		HP Harbour porpoise		MS Marianne, https://msmarianne.dk/
H Belt Sea		HP Harbour porpoise		MS Sabine, https://www.ms-sabine.dk/
H Belt Sea		HP Harbour porpoise		MS Fortuna, https://msfortuna.dk/ms-fortuna-2/
H Kattegat		BD Bottlenose dolphin		Cold Hawaii Watersport, https://coldhawaiiwatersport.dk/sael-og-delfin- safari/
H Kattegat		BD Bottlenose dolphin		Jyllandsakvariet, https://jyllandsakvariet.dk/en/events/about-the- events/dolphinsafari/

# 5.3. Does your country have a definition of the term 'harassment' in general and/or as it relates to the Cetacean Watching Industry? <sup>1</sup>

 $\Box$  No.

 $\boxtimes$  Yes. Provide definition below:

<sup>&</sup>lt;sup>1</sup> For example, the US Marine Mammal Protection Act uses the term harassment, and defines two levels: Level A harassment means any act of pursuit, torment, or annoyance that has the potential to injure a marine mammal or marine mammal stock in the wild. Level B harassment refers to acts that have the potential to disturb (but not injure) a marine mammal or marine mammal stock in the wild by disrupting behavioural patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering. NB. The UK uses the term 'disturbance' in its legislation.

There is no official definition of harassment in relation to the Cetacean Watching Industry, but the Danish "Hunting and Game Management Act" (LBK no. 265 of 21/03/2019) § 7 describes disturbance as follows: "The mammals mentioned in Annex 1 must not be intentionally disturbed with a harmful effect on the species or population. The prohibition applies in relation to all life stages of the covered animal species." Annex 1 include all cetacean species. The Act is part of the implementation of the Habitat Directive in Danish law.

# 5.4. Have there been any incidents of harassment towards small cetaceans in the context of commercial cetacean watching reported to authorities during the reporting period? ☑ No.

□ **Yes.** Provide information on table below. If necessary, copy table.

Date dd/mm/yy	Context of incidence	Outcome for (a) the animal or (b) human (e.g. behavioural response, injury, death)	
Legal procedures took place	/ court proceedings / convictions that	Responsible authority for such reports	
Link to websites o	or documentation of this report		

## 5.5. Does your country have any operators that offer swimming with dolphins (or other small cetaceans)?

In some parts of the world this has become an important tourism industry with potential impacts for both small cetaceans and swimmers. Although scarcely developed, it has occurred within the ASCOBANS Agreement Area, and requires at least background monitoring. Sometimes incidents occur and can lead to harm for small cetaceans and/or swimmers.

 $\bowtie$  No.

#### □ **Yes**. Provide information in the table below.

Location	Species	Operator	Any reported incidents between small cetaceans or swimmers.
	Choose an item.	(include link to website)	□ No □ Yes, please describe:
	Choose an item.	(include link to website)	□ No □ Yes, please describe:
	Choose an item.	(include link to website)	□ No □ Yes, please describe:

#### 5.6. List any incidents of harassment to small cetaceans during the reporting period in your country in the context of swimming with small cetaceans reported to authorities – and the outcome if known (behavioural response, injury, death, any court proceedings).

Date	Context of incidence	Outcome for (a) the animal or (b) human (e.g. behavioural response, injury, death)	Legal procedures/ court proceedings/ convictions that took place	Responsible authority for such reports	Link to websites or documentation of this report
dd/mm/yy					
dd/mm/yy					
dd/mm/yy					

#### 5.7. Are there any solitary sociable dolphin interactions in your country?

Occasionally, individual solitary dolphins may associate with humans, resulting in increased interactions between the two which may lead to impacts upon either. Sometimes incidents occur and can lead to harm for small cetaceans and/or swimmers.

- $\Box$  **No**. Go to Question 5.12.
- $\boxtimes$  **Yes**. Provide information in the table below.

Region	Date	Species	Link to websites	Reported incidents between small cetaceans and swimmers
H Belt		BD	https://www.tv2fyn.dk/svendborg/se-videoen-her-genforenes-	The dolphin
Sea		Bottlenose	superfan-med-delle	"Delle" stayed
	Oct.	dolphin		in the waters
	2019-Ap.		News on the local reunited with "Delle" in Travemünde,	near
	2023		Germany in 2023.	Svendborg for
			The dolphin had a facebook group:	more than
			https://www.facebook.com/groups/2204560343171724/?locale=da_DK	three years. A

			Je Ar sw we wi off pe int it c sta	cal citizen esper Stig ndersen both vam and ent kayaking ith it very ten. Many eople teracted with during the ay near vendborg.
Choose		Choose		
an	dd/mm/yy	an item.		
item.				

# 5.8. Does your country have any mitigation measures (codes of conduct/guidelines) in place in the event of disturbance or harassment in the context of commercial cetacean watching, swimming with cetaceans, and interactions with solitary sociable dolphins?

**Yes.** Please provide information below:

Measure: (may include regional measures)	Code of conduct (in Danish): https://mst.dk/media/248420/guidelines_hvalturisme2022_tilaengeligt.pdf			
Date of implementation:	2022 Region: all Danish waters			
Has the measure been effective?	□ No □ Yes. Comments: unknown			
Other information:				

Copy table if needed.

5.9. List any incidents of harassments to small cetaceans during the reporting period in the context of interactions with solitary sociable dolphins reported to authorities – and the outcome if known (behavioural response, injury, death, any court proceedings).

Date	Context of incidence	Outcome for (a) the animal or (b) human (e.g. behavioural response, injury, death)	Legal procedures/ court proceedings/ convictions that took place	Responsible authority for such reports	Link to websites or documentation of this report
dd/mm/yy					
dd/mm/yy					

# 5.10. Relevant new research/ work/ collaboration on the cetacean watching industry, "swim with small cetacean" operations, solitary sociable dolphin interactions and their possible effects on small cetaceans in your country.

(List initiatives/ projects (incl. PhD, MSc); publications (reports, theses, papers in journals, books) from any study; web links to other relevant information)

Riisager-Simonsen & Lusseau. 2022. Status for Marine mammal tourism in Denmark. https://mst.dk/media/250498/2022-12-dtu\_status-for-havpattedyrturismen\_mst\_report\_2022\_final.pdf

Code of Conduct for whale industry in Denmark (in Danish): https://mst.dk/media/248420/guidelines\_hvalturisme2022\_tilaengeligt.pdf

Brief on Code of Conduct (in Danish):

Allentoft-Larsen, M. C., Sveegaard, S. & Teilmann, J. 2022. Adfærdskodeks for hvalturisme og bådaktivitet omkring marsvin i Lillebælt (Code of Conduct). Aarhus Universitet, DCE – Nationalt Center for

<sup>□</sup> No.

Miljø og Energi, 8 s. – Fagligt notat nr. 2022|24 https://dce.au.dk/fileadmin/dce.au.dk/Udgivelser/Notater\_2022/N2022\_24.pdf

# 5.11. Have there been any other instances/issues related to cetacean watching industry during the reporting period in your country?

imes No.

□ **Yes.** Please provide details:

# 5.12. Is the perceived level of pressure from commercial small cetacean watching in your country increasing, decreasing, staying the same or unknown?

To be done per species where applicable.

Species	Increasing	Decreasing	Staying the same	Unknown	Nature of the evidence
HP Harbour porpoise					There are less than 10 operator. That cannot have a major impact on the harbour porpoises.
BD Bottlenose dolphin					Very few operators = 2
Choose an item.					

□ **Not applicable.** Comments:

### B. Disturbance (incl. potential physical impacts)

### 6. Recreational Sea Use

**AIM:** to determine whether recreational sea use is detrimental to small cetaceans and, if so, to identify types of activity and areas of concern. Relevant Resolutions: 8.9, 8.3, 7.1, 6.1, 5.4

Recreational use of the sea by humans includes a wide variety of activities, some of which are known to have a potential negative impact on small cetaceans. This includes the use of RIBs (rigid-hulled inflatable boats), hard-hulled boats exceeding 10 knots in speed, yachts and personal watercrafts such as jet skis, kayaks and surfboards; and excludes recreational fishing and sea-angling.

Interactions can cause animals to change behaviour and move away, but can also have more serious impacts, such as injury or even death due to collision. ASCOBANS has agreed on a number of resolutions that highlight the importance to review all available information on recreational use of the sea. Obtaining an overview of best practices and guidelines will enable comparisons to be made across the Agreement Area, and ultimately may lead to the provision of overall, consistent guidelines that might be developed at a regional or national level. In this section we strive to obtain an overview of potential risk areas and national sources that have data on incidents with small cetaceans related to recreational sea use.

#### 6.1. Are data on recreational sea use available for your country?

 $\Box$  **No.** Go to Question 6.3.

**Yes.** Provide information in the table below:

**Type of information:** (e.g. number of licenced recreational vessels per region, tourist number per region, other) Denmark has a nation-wide PPGIS-mapping of coastal and marine recreation involving 92 different activities in 16 main types. Data has been triangulated with AIS-data for recreational boats and can be found in in 500X500 meter cells covering all Danish marine waters. The University of Copenhagen establishes the data and mapping. Detailed information on the activities can be found in the report below and in the ECOMAR appendix.

Web link or other relevant link to data: (where can this information be found)

Kaae, B.C., Olafsson, A.S., & B.C. Draux, H., (2018) Blåt friluftsliv i Danmark. 174 pp. Institut for Geovidenskab og Naturforvaltning, KU. <u>https://havfriluftsliv.ku.dk/publikationer/</u>

Andersen, Jesper Harbo; Hammer, Kathrine Jul; Harvey, E. Therese; Knudsen, Steen Wilhelm; Murray, Ciaran Joseph; Carstensen, Jacob; Petersen, Ib Krag; Sveegaard, Signe; Tougaard, Jakob; Edelvang, Karen; Olsen, Jeppe; Vinther, Morten; Al-Hamdani, Zyad; Jensen, Jørn Bo; Leth, Jørgen O; Kaae, Berit C; Olafsson, Anton S. (2020) Supplementary material to ECOMAR: A data-driven framework for ecosystembased Maritime Spatial Planning in Danish marine waters. NIVA-rapport nr. 7525. Norsk institutt for vannforskning, 289 pp. Bilagsrapport - Link: <a href="https://niva.brage.unit.no/niva-xmlui/handle/11250/2678968">https://niva.brage.unit.no/niva-xmlui/handle/11250/2678968</a>

#### 6.2. Is information on main areas of recreational sea use available for your country?

Many Range States are mapping human activities to fulfil obligations under the EU Maritime Spatial Planning Directive, MSFD, OSPAR, and HELCOM; this information is relevant (though often not readily accessible) to ASCOBANS in understanding the extent and trends of human activities potentially impacting small cetaceans.

□ No.

□ Not applicable. Comments:

 $\boxtimes$  **Yes.** Provide information in the table below.

Region	Type of information	Is the data available online?	Provide link to data, or comment on unavailability
All Danish waters	PPGIS-mapping of 92 coastal and marine recreation in Danish marine waters and report 174 pp. (Danish)	⊠ No □ Yes	https://havfriluftsliv.ku.dk/publikationer/ Data can be obtained through the University of Copenhagen. Contact: bck@ign.ku.dk or asol@ign.ku.dk
All Danish waters	Above data in 500X500 m cells and triangulated with AIS data for recreational boats	⊠ No □ Yes	https://niva.brage.unit.no/niva- xmlui/handle/11250/2678968

		Data can be obtained through the
		University of Copenhagen. Contact:
		bck@ign.ku.dk or asol@ign.ku.dk

# 6.3. Were there any incidents of disturbance or harassment to small cetaceans in relation to recreational sea use in your country?

- □ No.
- ⊠ Unknown.

□ **Yes.** Provide information in the table below.

Date	Area	Context of incidence	Outcome for (a) the animal or (b) human	Legal procedures/ court proceedings/ convictions	Link to websites or documentation of the incident
dd/mm/yy	Choose an item.	(e.g. what kind of recreational activity)	(e.g. behavioural response, injury, death)		
dd/mm/yy	Choose an item.	(e.g. what kind of recreational activity)	(e.g. behavioural response, injury, death)		

# 6.4. Does your country have any mitigation measures (codes of conducts/ guidelines/ laws/ rules) in place in the event of disturbance or harassment of small cetaceans through <u>recreational sea use</u>?

□ **No**.

☑ **Yes.** Please provide information in table below:

Measure:	Code of conduct for whale watching inductry may also be applied to recreational sea use: https://mst.dk/media/248420/guidelines_hvalturisme2022_tilaengeligt.pdf			
Date of implementation:	2022 <b>Region:</b> Choose an item.			
Has the measure been effective?	□ No. □ Yes. Comments:			
Other information:				
Comutable Streeded				

Copy table if needed.

# 6.5. Relevant new research/ work/ collaboration on disturbance or harassment of small cetaceans through recreational sea use in your country.

(List initiatives/ projects (incl. PhD, MSc); publications (reports, theses, papers in journals, books) from any study; web links to other relevant information)

Hermannsen, L., Mikkelsen, L., Tougaard, J., Beedholm, K., Johnson, M., & Madsen, P. T. (2019). Recreational vessels without Automatic Identification System (AIS) dominate anthropogenic noise contributions to a shallow water soundscape. Scientific Reports, 9(1), [15477]. <u>https://doi.org/10.1038/s41598-019-51222-9</u>

Holm, T. E., Clausen, P., Bregnballe, T., Stepien, E. N., Sveegaard, S., Galatius, A., Teilmann, J., Pedersen, C. L., Nielsen, R. D., & Petersen, I. K. (2023). Vurdering af forstyrrelsestrusler i Natura 2000-områderne: Opfølgning på Natura 2000-planer for perioden 2022-2027. Del III. Områdegennemgang: Øerne, Sydøstkattegat, Bælthavene og Østersøen. Aarhus Universitet, DCE - Nationalt Center for Miljø og Energi. Videnskabelig rapport fra DCE - Nationalt Center for Miljø og Energi No. 512 https://dce2.au.dk/pub/SR512.pdf

Clausen, P., Bregnballe, T., Stepien, E. N., Sveegaard, S., Holm, T. E., Galatius, A., Teilmann, J., & Pedersen, C. L. (2023). Vurdering af forstyrrelsestrusler i Natura 2000-områderne: Opfølgning på Natura 2000-planer for perioden 2022-2027. Del II. Områdegennemgang: Jylland, Vesterhavet, Skagerrak, Nord- og Sydvestkattegat. Aarhus Universitet, DCE - Nationalt Center for Miljø og Energi. Videnskabelig rapport fra DCE - Nationalt Center for Miljø og Energi No. 511 <u>https://dce2.au.dk/pub/SR511.pdf</u>

Clausen, K. K., Clausen, P., Holm, T. E., Bregnballe, T., Sveegaard, S., Galatius, A., Teilmann, J., & Stepien, E. N. (2023). Vurdering af forstyrrelsestrusler i Natura 2000-områderne: Opfølgning på Natura 2000-planer for perioden 2022-2027. Del I. Introduktion med litteraturgennemgang. Aarhus Universitet, DCE - Nationalt Center for Miljø og Energi. Videnskabelig rapport fra DCE - Nationalt Center for Miljø og Energi No. 510 https://dce2.au.dk/pub/SR510.pdf

Elmegaard, S. L., McDonald, B. I., Teilmann, J., & Madsen, P. T. (2021). Heart rate and startle responses in diving, captive harbour porpoises (Phocoena phocoena) exposed to transient noise and sonar. Biology Open, 10(6), [bio058679]. <u>https://doi.org/10.1242/bio.058679</u>

# 6.6. Have there been any other instances / issues related to recreational sea use in your country during the reporting period?

 $\boxtimes$  No.

 $\Box$  **Yes.** Please provide details:

# 6.7. Is the perceived level of pressure from recreational sea use in your country increasing, decreasing, staying the same or unknown? To be done per species where applicable.

Species	Increasing	Decreasing	Staying the same	Unknown	Nature of the evidence
			X		<ul> <li>Generally, recreational participation is fairly stable in the population – University of Copenhagen has studies since the 1980s approx every 10 years (Søndergaard Jensen). New data in 2024.</li> <li>The PPGIS study has (so far) not been repeated so no longitudinal studies to see changes in individual activities beyond a few from general study.</li> <li>78% of the Danish adult population annually participate in water- oriented outdoor recreation. No studies on small cetaceans in relation to recreation.</li> </ul>
Choose an item.					
Choose an item.					

□ **Not applicable.** Comments:

### **B.** Disturbance (incl. potential physical impacts)

### 7. Other Sources of Disturbance

**AIM:** to identify new sources of disturbance that could be a threat to small cetaceans. Relevant Resolutions: 8.9, 6.1

Overlap of small cetacean and human habitat use is not covered by the questions above, while human activities in the seas are increasing, particularly in the coastal zone. Human activities can, for example, cause a small cetacean to change behaviour, or it can cause physical harm or death. This section aims to identify new sources of disturbance that could be a threat to small cetaceans. The issue of noise is covered under section B3.

# 7.1. Have there been any incidents of disturbance to small cetaceans in your country during the reporting period, not covered in the items above?

- ⊠ No.
- □ Unknown.
- □ **Yes.** Please provide information in the table below.

Any incidents of disturbance to small cetaceans not covered in Sections B5 or B6 by the report.

Description of event:		Date: dd/mm/yy	Area: Choose an item.
Outcome for (a) the animal or (b) human	(e.g. behavioural response, injury, death)		
Describe mitigation measures:			
Legal procedures/ court proceedings/ convictions:			

Links to relevant information: (Websites, etc.)

7.2. Relevant new research/work/collaboration on other sources of disturbance in your country.

(List initiatives/ projects (incl. PhD, MSc); publications (reports, theses, papers in journals, books) from any study; web links to other relevant information)

### C. Habitat Change and Degradation (incl. potential physical impacts)

### **10. Pollution and hazardous substances (incl. microplastics)**

**AIM:** to illustrate progress on understanding, monitoring and mitigating impacts of important current and emerging pollution-related hazards on small cetaceans. during the reporting period Relevant Resolutions: 8.9, 8.8, **8.7**, 8.4, 8.3, **7.4**, 7.1, 6.1, 5.7

Marine environments have been subject to a wide range of different types of pollution over the last decades. Top predators, such as small cetaceans that feed on higher trophic prey, tend to accumulate many of these potentially hazardous substances. There are a number of contaminants and pathogens that are known, or suspected, to have impacts on small cetacean health, immune status or reproduction. These include, for example: polychlorinated biphenyls (PCBs) and other persistent organic pollutants (POPs), oil pollution (polycyclic aromatic hydrocarbons), toxins from harmful algal blooms (HABs), sewage, radionuclides, toxic elements, tri-butyl tin (TBT), morbillivirus, and Brucella. In addition, micro- and nano-plastics are also present in marine environment and their impacts are presently poorly understood.

Monitoring can be done using body tissue from small cetaceans obtained from live animals through biopsies, or from dead animals that are generally found on the shore. Necropsies allow the sampling of different types of tissue such as blubber, muscle, kidney or liver and these can be analyzed subsequently.

To better understand the impact of contaminants on small cetacean health, to detect new emerging hazards and to work towards a common protocol for analyzing samples, countries are asked to provide information on their programs.

Note: Includes microplastics. Macroplastics and discarded fishing gear are covered under Section C 9 Marine Debris.

#### **Questions:**

#### 10.1. Does your country conduct monitoring of pollutants in small cetaceans?

Several pollutants have serious effects on individual small cetaceans and can threaten populations. The aim is to capture the nature of existing monitoring and identify gaps in terms of which pollutants are monitored, the extend of this monitoring and the establishment of securely funded long-term data series.

No. Go to Question 10
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	Yes.
Co	mments

Not on a regular basis, but pollutants has been studied in different projects for seals and harbour porpoises.

10.2. Who is carrying out the pollutant monitoring program? Please provide information on the institution(s)/agencies that collect the samples and carry out the analyses. Copy table if needed.

Name: Role in monitoring: (e.g. sample collection, analyses, other) Postal Address: Contact Person: Telephone: Email: Weblink:

**10.3.** Identify the small cetacean species that were covered by your monitoring program during the reporting period. Mark the year in which the species was sampled with an x.

2016	2017	2018	2019	Species	2016	2017	2018	2019	Species
				Choose a species					Choose a species
				Choose a species					Choose a species
				Choose a species					Choose a species

#### Comments:

10.4. Select the source of your samples (multiple answers possible)

- □ Necropsy from stranding
- □ Necropsy from bycatch
- □ Sample from live stranding
- □ Biopsy from live animal
- □ Other (specify in comments)

#### Comments:

#### 10.5. Select the geographical coverage of your monitoring program (several answers are possible)

OSPAR Region I Arctic Waters	OSPAR Region IV Bay of Biscay	HELCOM cont.
Norwegian Sea	and Iberian Coast	Gulf of Finland
	N. Bay of Biscay	Northern Baltic Proper
OSPAR Region II Greater North Sea	Iberian Sea	Western Gotland Basin
Dogger Bank	Gulf of Cadiz	Eastern Gotland Basin
Southern North Sea		Gulf of Riga
Northern North Sea	OSPAR Region V Wider Atlantic	□ Gdansk Basin
Channel		Bornholm Basin
Norwegian Trench		□ Arkona Basin
Skagerrak		□ Kattegat
	Bothnian Bay	□ Belt Sea
OSPAR Region III Celtic Sea	Bothnian Sea	□ The Sound
Celtic Sea	Archipelago Sea	
Irish Sea	Åland Sea	
Irish & Scottish W. Coast		

A map of the OSPAR and HELCOM regions and sub-regions can be found in the Annex A.

#### 10.6. Select the contaminant / pathogen analyses you have conducted for small cetaceans.

Comments:			
Sewage	Morbillivirus	□ Others:	□ Others:
□ HAB toxins	🗆 TBT	Nanoplastics	□ Others:
□ Oil (e.g. PAHs)	□ Toxic elements	□ Microplastics	□ Others:
□ POPs (e.g. PCBs)	Radionuclides	Brucella	□ Others:

#### 10.7. Does your country determine microplastics in small cetaceans?

**No.** Go to Question 10.9.

**Yes.** Please provide information in the table below:

**Do you have a specific protocol to monitor microplastic in small cetaceans? No Yes** (If yes, please provide details and weblinks or upload document.)

Not a particular protocol, but the implemented method is described in:

Mikkelsen L, Strand J & Kyhn LA 2022. Screening for plastik i havpattedyr. Forekomst og sammensætning. Aarhus Universitet, DCE – Nationalt Center for Miljø og Energi, 26 s. - Teknisk rapport nr. 230 http://dce2.au.dk/pub/TR230.pdf

There is currently no agreed protocol between Parties. Best practice needs to be established to make sure that all results obtained are comparable between research institutes. In particular, it is essential to avoid contamination of samples during processing, e.g. with airborne microplastic fibres.

## 10.8. Relevant new research/work/collaboration on impact of pollution and hazardous substances (incl. microplastics) on small cetaceans in your country.

We need to capture information on new knowledge arising from monitoring schemes or other research projects, especially results which enhance our understanding of impacts of hazardous pollutants and/or assess their known or likely effects on small cetacean population status (e.g. considering PCB concentrations in blubber in relation to threshold for inhibition of reproduction). Where relevant, please report separately per pollutant, species and area.

(List initiatives/ projects (incl. PhD, MSc); publications (reports, theses, papers in journals, books) from any study; web links to other relevant information)

Mikkelsen L, Strand J & Kyhn LA 2022. Screening for plastik i havpattedyr. Forekomst og sammensætning. Aarhus Universitet, DCE – Nationalt Center for Miljø og Energi, 26 s. - Teknisk rapport nr. 230 http://dce2.au.dk/pub/TR230.pdf

Sonne, C., Siebert, U., Gonnsen, K., Desforges, J. P., Eulaers, I., Persson, S., Roos, A., Bäcklin, B. M., Kauhala, K., Tange Olsen, M., Harding, K. C., Treu, G., Galatius, A., Andersen-Ranberg, E., Gross, S., Lakemeyer, J., Lehnert, K., Lam, S. S., Peng, W., & Dietz, R. (2020). Health effects from contaminant exposure in Baltic Sea birds and marine mammals: A review. Environment International, 139, [105725]. <u>https://doi.org/10.1016/j.envint.2020.105725</u>

# 10.9. If applicable, list any additional evidence/ data of <u>reduced</u> impacts of pollutants on small cetaceans following implementation of national mitigation measures (e.g. decline of contaminant levels in blubber over time).

#### No data

10.10. Have there been any instances/ issues related to pollution and hazardous substances in your country during the reporting period?

 $\boxtimes$  No.

□ Yes. Please provide details:

## 10.11. Is the perceived level of pressure from pollution and hazardous substances in your country increasing, decreasing, staying the same or unknown?

To be done per species where applicable.

Species	Increasing	Decreasing	Staying the same	Unknown	Nature of the evidence
HP Harbour porpoise				X	
Choose an item.					
Choose an item.					

□ Not applicable. Comments:

### C. Habitat Change and Degradation (incl. potential physical impacts)

### 11. Ship Strikes

**AIM:** understanding the potential risk of ship strike as a cause of injury/death in small cetaceans. Relevant Resolutions: 8.9, 8.2, , 6.1, 5.4

Ship strikes are collisions between vessels and cetaceans. In the last decades, evidence has emerged that ship strikes might occur more often than previously thought and can have a significant impact on small resident cetacean populations. Most research so far has focused on large cetaceans as those animals are often carried visibly into port at the bow of a vessel. For small cetaceans, ship strike events are not well documented.

Ship strike occurrence is directly linked to the frequency of shipping activity, including such directed at cetaceans, i.e. cetacean watching. To quantify this pressure, it is important to know what kind of vessels are involved in the strike, as well as the type, size and speed of the vessel. But it is also important to have information on the small cetaceans involved, in particular if the animals were engaged in certain behaviour such as feeding.

Ship strike can cause direct death or injury in cetaceans. Even collisions that are non-fatal might leave individuals with a reduction in their chance of survival. To determine the occurrence of ship-strikes, different sources are used. For small cetaceans, direct observations are the rarest. Necropsies of stranded animals can find evidence of characteristic trauma and photographs of animals that survived ship strikes can show typical injuries, such as marks left by propellers. One way to quantify how many animals in a population are impacted by ship strike is to assess the percentage of animals in a photo-identification catalogue that bear ship strike marks.

As this is still a not well documented threat, this section aims to obtain an overview of what kind of data and research is available and ongoing in the countries.

### Questions:

### 11.1. Are there reports available in your country of ship strikes with small cetaceans from visual observations?

The International Whaling Commission (IWC) has a global database for ship strike incidents with small cetaceans. Whether or not your country is Party to the IWC, it is encouraged for countries to provide all ship strike incident information to the IWC database.

🛛 No.

#### **Yes.** Please provide information from the reporting period in the table below.

Has the ship strike been submitted to the IWC Ship Strike Database?	Region	<b>Species</b> (if known)	Date of incident (dd/mm/yy)	<b>Contact</b> (if available contact details of the observer)	Description of the observed incidence (Group size if other cetaceans present, dead/alive after collision, animal retrieval, animal being dead before collision, other information, vessel type/name, speed, damage to vessel or injuries to people)	Is there a necropsy report?	Websites, other information, photographs or publications: (provide links)
Choose an item.	Choose an item.	Choose an item.				Choose an item. Link:	
Choose an item.	Choose an item.	Choose an item.				Choose an item. Link:	
Choose an item.	Choose an item.	Choose an item.				Choose an item. Link:	

### 11.2. Are there reports in your country of vessel strikes from necropsies of stranded animals for the reporting period?

🗆 No.

 $\boxtimes$  Yes. Please provide information in the table below.

	General Information			ed animals			
Year	Region	Species	Number of animals with cause of death ship strike (e.g. animals showing ship strike markings <sup>2</sup> )		of death ship strike (e.g. animals		Comments
			possible	certain			
2018	Oll Skagerrak	LFPW Long-finned pilot whale	1	1	Alstrup, A. K. O., Sonne, C., Brauckhoff, M., Hansen, J. H., & Thøstesen, C. B. (2022). Skull and neck lesions in a long-finned pilot whale (Globicephala melas): A result of ship collision? Animals, 12(18), [2362]. <u>https://doi.org/10.3390/ani12182362</u>		

<sup>&</sup>lt;sup>2</sup> These can be sub-acute (animal dies not immediately after the ship-strike) or chronic lesions (scar forming starts, but there is likely infection/inflammation) or healed lesions that are unrelated to the cause of death (although they could have affected an animals health status in the longer term).

and i.e. the North Sea. It o strike in Denmark. apport-2013.pdf
_

# 11.3. Does your country have a protocol in use to determine that a cause of death in post-mortem examination is due to a vessel strike?

🛛 No.

□ **Yes.** Please provide information below:

Not a particular protocol, but all necropsied cetaceans are examined for outer and inner lesions.

## 11.4. Is there evidence in your country from existing photo-identification catalogues of small cetaceans of any non-lethal ship strike during the reporting period?

For populations of small cetaceans, such as bottlenose dolphins, one can identify those animals in photo-identification catalogues of animals that show ship-strike evidence (e.g. scars). Monitoring the % of animals that show ship strike evidence can be a useful tool to monitor the development of this threat.

 $\boxtimes$  No.

#### □ **Yes.** Please provide information in the table below.

Overview of ship strike evidence in photo-identification catalogues

	General Information		Photo-identified animals in the catalogue				
Year	Region	Species	# individual animals in the photo- identification	# animals showing ship strike markings (e.g. scars)			
			catalogue	possible	certain	Unknown	
	Choose an item.	Choose a species					
	Choose an item.	Choose a species					
	Choose an item.	Choose a species					

# 11.5. Do you have any other photographs or evidence of ship strikes outside of photo-identification catalogue?

🗆 No.

#### **Yes.** Please provide details:

Of the pilot whale mentioned above: Alstrup, A. K. O., Sonne, C., Brauckhoff, M., Hansen, J. H., & Thøstesen, C. B. (2022). Skull and neck lesions in a long-finned pilot whale (Globicephala melas): A result of ship collision? Animals, 12(18), [2362]. <u>https://doi.org/10.3390/ani12182362</u>

## 11.6. Relevant new research/work/collaboration on ship strike and its possible effects on small cetaceans in your country.

(List initiatives/ projects (incl. PhD, MSc); publications (reports, theses, papers in journals, books) from any study; web links to other relevant information) No

# 11.7. List any management/ policy actions/ relevant regulations/ guidelines related to mitigating ship strike for small cetaceans (re-routing, tracking animals, ship speed limits) in your country and the year of implementation (current and planned).

Provide web links if available.

## 11.8. Have there been any other instances / issues of ship strike on small cetaceans in your country in the reporting period?

🛛 No.

□ **Yes.** Please provide details:

# 11.9. Is the perceived level of pressure from ship strikes on small cetaceans in your country increasing, decreasing, staying the same or unknown?

To be done per species where applicable.

Species	Increasing	Decreasing	Staying the same	Unknown	Nature of the evidence
HP Harbour porpoise				X	Very few documented cases.
Choose an item.					
Choose an item.					

□ **Not applicable.** Comments:

### C. Habitat Change and Degradation (incl. Potential physical impacts)

### 12. Climate change (incl. ocean acidification)

**AIM:** to illustrate progress on understanding, monitoring and mitigating negative effects of important and emerging climate change related impacts on small cetaceans. Relevant Resolutions: 8.9, 8.4 (Rev.MOP9), 8.3, 7.4, 7.1, 6.1, 5.7

It is certain that climate change is altering the habitat of cetaceans. However, our understanding of how the predicted changes will impact different species and populations can be further developed by identifying issues and trends through reporting. CMS<sup>3</sup> highlights the importance of addressing potential issues through the engagement of (1) researchers to better understand the underlying processes, as well as (2) conservation managers and policy makers to monitor changes and to mitigate negative impacts. Focus should be given to understanding tangible climate change effects relevant to cetaceans, such as changing ocean temperatures, prey depletion / prey range shifts, ocean acidification, increased frequency and intensity of ocean storms, changes in sea ice and weakening of the North Atlantic Drift. Such occurrences require that we gather evidence on the existence and nature of climate change effects on small cetaceans and evaluate current monitoring programmes and mitigation measures.

This section aims to provide an overview of what kind of activities are already ongoing in the member states to address climate change. The focus is on those actions specifically regarding cetaceans as well as the most likely impacts on their habitat and prey. Climate change possibly represents one of the most important future threats to the status of cetaceans in the ASCOBANS region. Direct effects may arise due to ocean warming, resulting in distribution shifts (generally northward) so that the animals continue to occupy waters with temperature regimes compatible with their thermal niches. Key indirect effects will result from changes in prey distribution and abundance due to ocean warming, ocean acidification and changes in ocean current systems.

#### Questions:

## 12.1. Does your country undertake monitoring that has potential to contribute to knowledge and identification of climate impacts on small cetaceans?<sup>4</sup>

Climate change will have a multiplicity of possible direct and indirect effects on small cetaceans. Attempting to quantify this is challenging, these questions are aimed to provide an overview of the type of monitoring programmes that are conducted that may provide indirect evidence of climate change on small cetaceans.

- $\Box$  No. Go to Question 12.3.
- $\boxtimes$  **Yes.** Continue to Question 12.2.

#### 12.2. Which effects has your country been monitoring during the reporting period?

Overview of monitoring activities related to climate change effects on small cetaceans. Please add additional direct or indirect effects if applicable.

<sup>&</sup>lt;sup>3</sup> <u>CMS Resolution 12.21</u> on Climate Change and Migratory Species.

<sup>&</sup>lt;sup>4</sup> This refers to direct and indirect effects.

Monitoring activity	<b>Comments</b> (if possible, provide contact / link to project)
oxtimes Changes in small cetacean abundance	Aarhus University, Ministry of the Environment
☐ Changes in small cetacean distribution	Aarhus University, Ministry of the Environment
Changes in small cetacean migration or movement range	
Changes in small cetacean migration or movement timing	
Changes in small cetacean community structure	
Changes in reproductive success and timing in small cetaceans	
Changes in prey (fish) abundance and distribution	ICES and DTU Aqua
Changes in timing of prey (fish) spawning and migration	
☑ Changes in fishing effort	DTU Aqua, Fishery Agency
□ Changes in the occurrence of pathogens (from sampled individuals)	
Incidences of algal blooms (if yes, where; specify year)	
□ Other (specify):	

# 12.3. Relevant new research/ work/ collaborations which provide evidence/ data about climate change, including its emerging potential issues and effects, on small cetaceans in your country.

(List initiatives/ projects (incl. PhD, MSc); publications (reports, theses, papers in journals, books) from any study; web links to other relevant information); include the species concerned, the climate change effect observed, who did the work)

van Beest, F., Dietz, R., Galatius, A., Kyhn, L. A., Sveegaard, S., & Teilmann, J. (2022). Forecasting shifts in habitat suitability of three marine predators suggests a rapid decline in inter-specific overlap under future climate change. Ecology and Evolution, 12(7), [e9083]. <u>https://doi.org/10.1002/ece3.9083</u> - porpoises, no huge effect observed by modelling

# 12.4. Have there been any instances / issues related to identified trends in small cetacean populations as a result of climate change in your country during the reporting period?

🛛 No.

□ **Yes.** Please provide details:

# 12.5. Is the perceived level of pressure from climate change to small cetaceans in your country increasing, decreasing, staying the same or unknown? To be done per species basis where applicable.

Species	Increasing	Decreasing	Staying the same	Unknown	Nature of the evidence
HP Harbour porpoise				⊠	
Choose an item.					
Choose an item.					

□ Not applicable. Comments:

### C. Habitat Change and Degradation (incl. potential physical impacts)

### 13. Physical Habitat Change (e.g. from construction)

**AIM:** human activities in the Agreement Area have the potential to impact upon small cetaceans. Tracking those activities that cause physical habitat change and improving our understanding of their relative impacts will help shape any necessary mitigation action required. Relevant Resolutions: 8.11 (Rev.MOP9), 8.9, 8.6, 8.4 (Rev.MOP9), 8.3, 7.1, 6.2, 6.1, 5.7

This section aims to review new information on physical habitat change, e.g. from construction, and its impacts on small cetaceans, their prey and their habitat, and make recommendations to Parties and other relevant authorities for further action.

The collation of this information will contribute to the development of risk maps showing the spatial and temporal (by season) distribution of activities that have an impact on small cetaceans, including information provided in National Reports, taking into account the work done by other organizations.

Note: In the term "physical habitat change", we include a) coastal/marine construction – artificial islands, harbours, bridges, oil/gas platforms, wind turbines, tidal turbines; and b) seabed damage – dredging, bottom trawling.

#### Questions:

13.1. Provide spatial information on locations (in form of maps and/or links) of physical habitat change in your country by activity type (dredging, marine construction, coastal construction) for the reporting period.

Many range states are mapping human activities to fulfil obligations under the EU Maritime Spatial Planning Directive, MSFD, OSPAR, and HELCOM; this information is relevant (though often not readily accessible) to ASCOBANS in understanding the extent and trends of human activities potentially impacting small cetaceans.

Region	<b>Type of information</b> (e.g. maps, GIS, reports)	Is the data available online?	Provide web link to data, or comment on unavailability
All Danish seas	Digital map of Denmark's maritime spatial plan	🗆 No 🛛 Yes	https://havplan.dk/en/page/info
Choose an item.		□No □ Yes	
Choose an item.		□No □ Yes	

13.2. Does your country have any reported cases of physical habitat change (e.g. dredging, marine construction, coastal construction) impacting small cetaceans during the reporting period?
 ☑ No.

□ **Yes.** Please provide details:

Provide web links if available.

# 13.3. Does your country have any mitigation measures (regulations/guidelines) to prevent impacts on small cetaceans during physical habitat change activities (e.g. dredging, marine construction, coastal construction)?

 $\Box$  No.

#### ☑ **Yes.** Please provide details below:

Overview of mitigation measures related to small cetaceans and physical habitat change activities.

Measure:	All major physical changes to the marine environment has to go through the EIA process, where the potential impact on all marine mammals has to be assessed and minimised.
Industry:	
	All industries
Activity type:	
	All major physical changes or activities
Has the measure	<b>No. Yes.</b> Comments: probably
been effective?	

Other	
information:	

Copy table if needed.

# 13.4. Relevant new initiatives/projects/publications (reports, theses, papers in journals, books) in your country during the reporting period on impacts from physical habitat change on small cetaceans (incl. title, organization, lead author).

Provide web links if available.

Assessments of planned wind farms are published all the time, but very few studies include monitoring of the actual construction and operational phase.

# 13.5. Have there been any other instances/issues in your country regarding physical habitat change during the reporting period?

🛛 No.

□ **Yes.** Please provide details:

# 13.6. Is the perceived level of pressure from physical habitat change in your country increasing, decreasing, staying the same or unknown?

To be done per species basis where applicable.

Species	Increasing	Decreasing	Staying the same	Unknown	Nature of the evidence
HP Harbour porpoise	⊠				The plan is to construct an increasing number of new wind farms within a short period of time
Choose an item.					
Choose an item.					

□ **Not applicable.** Comments:

### C. Habitat Change and Degradation (incl. potential physical impacts)

### 14. Other issues

14.1. List any other issues related to habitat change and degradation not mentioned above.

### E. Area-based Conservation / Marine Protected Areas

### 16. Protected areas, e.g. Natura 2000 sites

AIM: to provide information on existing and proposed marine protected areas with small cetaceans as part of the selection criteria. Relevant Resolutions: 5.7

Marine protected areas (MPAs) are considered under numerous agreements (including the Convention on Biological Diversity, Habitats Directive, Bern Convention, Ramsar Convention, OSPAR Convention, HELCOM, ACCOBAMS, MSFD) as a tool to achieve conservation goals. Part of ASCOBANS remit is to provide expert advice on the conservation and management of small cetaceans. This includes inviting Parties and Range States to continue or initiate research aimed at locating areas of special importance to the survival (in particular breeding and feeding) of small cetaceans as suitable sites for the establishment of protected areas. This also

includes advising on appropriate management measures in these areas, on their own or in the context of other intergovernmental bodies to ensure the protection of small cetaceans.

To monitor the progress of such work to fulfil the obligations of Resolution 5.7 and actions in the workplan, ASCOBANS requires information (e.g. location, species, status, spatial data, management plans and monitoring) on existing and proposed marine protected areas with small cetaceans as part of the selection criteria.

It is of particular interest to ASCOBANS to obtain an overview of the current scale of marine protected areas and to review best practice approaches to management of marine protected areas, in order to make recommendations to Parties.

### Questions:

16.1. Does your country have MPAs (existing or proposed) where small cetaceans are the primary reason for the (proposed) designation?

 $\Box$  No.

☑ **Yes.** Please provide details/updates in table below:

Name (full name of MPA)	ASCOBANS Action Plan	Region	Size (km²)	Species	MPA status	Date of designation (if applicable)	Legislation/ directive (e.g. Habitats Directive)	Is there a site-specific management plan in place?	Link to shapefile and/or online map	Link to any other online information
Centrale Storebælt og Vresen	□ Jastarnia Plan □ North Sea Plan ⊠ WBBK Plan □ Common Dolphin SAP □ Not Applicable	H Belt Sea	623	HP Harbour porpoise (Copy drop- down to add more species)	<ul> <li>Designated</li> <li>Submitted</li> <li>Under consultation</li> <li>Recommended</li> <li>Not</li> <li>Applicable</li> </ul>	14/04/2010	Habitats Directive	<ul> <li>□ No.</li> <li>∑ Yes. Link: https://mst.dk/media/194236/n116- basisanalyse-2022-27-centrale- storebaelt.pdf</li> </ul>	https://mst.dk/media/194236/n116- basisanalyse-2022-27-centrale- storebaelt.pdf	
Gilleleje Flak og Tragten	□ Jastarnia Plan □ North Sea Plan ⊠ WBBK Plan □ Common Dolphin SAP□ Not Applicable	H The Sound	151	HP Harbour porpoise (Copy drop- down to add more species)	<ul> <li>Designated</li> <li>Submitted</li> <li>Under consultation</li> <li>Recommended</li> <li>Not</li> <li>Applicable</li> </ul>	14/04/2010	Habitats Directive	<ul> <li>□ No.</li> <li>⊠ Yes. Link: https://mst.dk/media/194254/n195- basisanalyser-2022-27-gilleleje-flak.pdf</li> </ul>	https://mst.dk/media/194254/n195- basisanalyser-2022-27-gilleleje- flak.pdf	
Flensborg Fjord, Bredgrund og farvandet omkring Als	□ Jastarnia Plan □ North Sea Plan ⊠ WBBK Plan □ Common Dolphin SAP□ Not Applicable	H Belt Sea	645	HP Harbour porpoise (Copy drop- down to add more species)	Designated     Submitted     Under     consultation     Recommended     Not     Applicable	14/04/2010	Habitats Directive	□ No. ⊠ Yes. Link: https://mst.dk/media/195716/n197- flensborg-fjord.pdf	https://mst.dk/media/195716/n197- flensborg-fjord.pdf	
Skagens Gren og Skagerrak	☐ Jastarnia Plan ⊠ North Sea Plan ☐ WBBK Plan	OII Skagerrak	2703	HP Harbour porpoise (Copy drop- down to	Designated Submitted Under consultation Recommended	14/04/2010	Habitats Directive	□ No. ☑ Yes. Link: https://mst.dk/media/194110/n1- basisanalyse-2022-27-skagens- gren-og-skagerrak.pdf	https://mst.dk/media/194110/n1- basisanalyse-2022-27-skagens- gren-og-skagerrak.pdf	

□ Common Dolphin SAP□ Not Applicable	add more species)	□ Not Applicable			

16.2. Does your country have MPAs (existing or proposed) with small cetaceans are forming part of the selection criteria?

□ No.

☑ **Yes.** Please provide details/updates in table below:

Name (full name of MPA)	ASCOBANS Action Plan	Region	Size (km²)	Species forming part of selection criteria	MPA status	Date of designation (if applicable)	Legislation/ directive (e.g. Habitats Directive)	Is there a site-specific management plan in place?	Link to shapefile and/or online map	Link to any other online information
Saltholm og omliggende hav	WBBK	The Sound	73	Harbour porpoise	Designated	31/12/2006	Habitats Directive	https://mst.dk/media/194312/n142- basisanalyse-2022-27-saltholm-og- omliggende-hav.pdf		
Sandbanker ud for Thyborøn	WBBK	Southern North Sea	64	Harbour porpoise	Designated	31/12/2006	Habitats Directive	https://mst.dk/media/194408/n219- basisanalyse-2022-27-sandbanker- thyboroen.pdf		
Vadehavet med Ribe å, Tved å og Varde å vest for Varde	North Sea	Southern North Sea	1353	Harbour porpoise	Designated	31/12/2006	Habitats Directive	https://mst.dk/media/195717/n246-sydlige- nordsoe.pdf		
Sydlige Nordsø	North Sea Plan	Southern North Sea	2473	Harbour porpoise	Designated	14/04/2010	Habitats Directive	https://mst.dk/natur-vand/natur/natura- 2000/natura-2000-planer/natura-2000- planlaegning-2022-2027		
Store Rev	North Sea Plan	Skagerrak	109	Harbour porpoise	Designated	14/04/2010	Habitats Directive	https://mst.dk/natur-vand/natur/natura- 2000/natura-2000-planer/natura-2000- planlaegning-2022-2027		
Gule Rev	North Sea Plan	Skagerrak	473	Harbour porpoise	Designated	14/04/2010	Habitats Directive	https://mst.dk/natur-vand/natur/natura- 2000/natura-2000-planer/natura-2000- planlaegning-2022-2027		
Ålborg Bugt, Randers Fjord og Mariager Fjord	WBBK	Kattegat	689	Harbour porpoise	Designated	31/12/2006	Habitats Directive	https://mst.dk/natur-vand/natur/natura- 2000/natura-2000-planer/natura-2000- planlaegning-2022-2027		
Anholt og havet nord for	WBBK	Kattegat	134	Harbour porpoise	Designated	31/12/2006	Habitats Directive	https://mst.dk/natur-vand/natur/natura- 2000/natura-2000-planer/natura-2000- planlaegning-2022-2027		
Havet omkring Nordre Rønner	WBBK	Kattegat	186	Harbour porpoise	Designated	31/12/2006	Habitats Directive	https://mst.dk/media/194135/n20- basisanalyse-2022-27-nordre-roenner.pdf		
Herthas Flak	WBBK	Kattegat	14	Harbour porpoise	Designated	31/12/2006	Habitats Directive	https://mst.dk/media/194147/n191- basisanalyse-2022-27-herthas-flak.pdf		
Hirsholmene, havet vest herfor og Ellinge ås udløb	WBBK	Kattegat	4	Harbour porpoise	Designated	14/04/2010	Habitats Directive	https://mst.dk/natur-vand/natur/natura- 2000/natura-2000-planer/natura-2000- planlaegning-2022-2027		
Kims Top og den Kinesiske Mur	WBBK	Kattegat	262	Harbour porpoise	Designated	14/04/2010	Habitats Directive	https://mst.dk/natur-vand/natur/natura- 2000/natura-2000-planer/natura-2000- planlaegning-2022-2027		

	I	1		l	1 1		I	https://mst.dk/natur-vand/natur/natura-	1	
Læsø Trindel og				Harbour			Habitats	2000/natura-2000-planer/natura-2000-		
Tønneberg Banke	WBBK	Kattegat	87	porpoise	Designated	14/04/2010	Directive	planlaegning-2022-2027		
<u>U</u>		0			Ŭ Ŭ			https://mst.dk/natur-vand/natur/natura-		
				Harbour			Habitats	2000/natura-2000-planer/natura-2000-		
Mejl Flak	WBBK	Kattegat	39	porpoise	Designated	14/04/2010	Directive	planlaegning-2022-2027		
		Ŭ			Ŭ Ŭ			https://mst.dk/natur-vand/natur/natura-		
Strandenge på Læsø og				Harbour			Habitats	2000/natura-2000-planer/natura-2000-		
havet syd herfor	WBBK	Kattegat	673	porpoise	Designated	14/04/2010	Directive	planlaegning-2022-2027		
		<u> </u>			j in i			https://mst.dk/natur-vand/natur/natura-		
æbelø, havet syd for og				Harbour			Habitats	2000/natura-2000-planer/natura-2000-		
Nærå	WBBK	Belt Sea	113	porpoise	Designated	31/12/2006	Directive	planlaegning-2022-2027		
Begtrup Vig og					j in i			https://mst.dk/natur-vand/natur/natura-		
kystområder ved				Harbour			Habitats	2000/natura-2000-planer/natura-2000-		
Helgenæs	WBBK	Belt Sea	18	porpoise	Designated	31/12/2006	Directive	planlaegning-2022-2027		
				P = - P = - = =				https://mst.dk/natur-vand/natur/natura-		
Fyns Hoved, Lillegrund og				Harbour			Habitats	2000/natura-2000-planer/natura-2000-		
Lillestrand	WBBK	Belt Sea	22	porpoise	Designated	31/12/2006	Directive	planlaegning-2022-2027		
				P = - P = - = =				https://mst.dk/natur-vand/natur/natura-		
Havet mellem Romsø og				Harbour			Habitats	2000/natura-2000-planer/natura-2000-		
Hindsholm samt Romsø	WBBK	Belt Sea	42	porpoise	Designated	31/12/2006	Directive	planlaegning-2022-2027		
Havet og kysten mellem	TIBBIL	Don Cou		perpetee	Deelghatea	01/12/2000	Directive	https://mst.dk/natur-vand/natur/natura-		
Præstø Fjord og				Harbour			Habitats	2000/natura-2000-planer/natura-2000-		
Grønsund	WBBK	Belt Sea	321	porpoise	Designated	31/12/2006	Directive	planlaegning-2022-2027		
Clefisulu	VIDDIC	Dell Gea	521	porpoise	Designated	51/12/2000	Directive	https://mst.dk/natur-vand/natur/natura-		
				Harbour			Habitats	2000/natura-2000-planer/natura-2000-		
Lillebælt	WBBK	Belt Sea	349	porpoise	Designated	31/12/2006	Directive	planlaegning-2022-2027		
	WBBI	Den dea	040		Designated	31/12/2000				
Maden på Helnæs og	WBBK	Dalt Can	04	Harbour	Designated	24/42/2000	Habitats	https://mst.dk/media/194240/n124-		
havet vest for	WBBK	Belt Sea	21	porpoise	Designated	31/12/2006	Directive	basisanalyse-2022-27-helnaes.pdf		
				L La alca e con			L La bitra ta	https://mst.dk/media/236067/n179-revideret-		
National Transf		Dall Oas	00	Harbour	Destructed	04/40/0000	Habitats	basisanalyse-2022-27-nakskov-fjord-og-		
Nakskov Fjord	WBBK	Belt Sea	82	porpoise	Designated	31/12/2006	Directive	indrefjord.pdf		
Observations Figure 1 and the second								https://mst.dk/media/232518/n162-revideret-		
Skælskør Fjord og havet				L La alca e con			L La bitra ta	basisanalyse-2022-27-skaelskoer-fjord-og-		
og kysten mellem Agersø	WBBK	Dall Oas	05	Harbour	Designation	04/40/0000	Habitats	havet-og-kysten-mellem-agersoe-og-		
og Glænø	WBBK	Belt Sea	25	porpoise	Designated	31/12/2006	Directive	glaenoe.pdf		
Smålandsfarvandet nord								https://mst.dk/media/194285/n173-		
for Lolland, Guldborgsund,				L La alca e con			L La bitra ta	basisanalyse-2022-27-smaalandsfarvandet-		
Bøtø Nor og Hyllekrog-		Dalt Can	400	Harbour	Designated	24/42/2000	Habitats	nord-for-lolland-guldborgsund-boetoe-nor-og-		
Rødsand	WBBK	Belt Sea	406	porpoise	Designated	31/12/2006	Directive	hyllekrog-roedsand.pdf		
				Harbour			Habitats	https://mst.dk/media/194096/n251-		
Femern Bælt	WBBK	Belt Sea	115	porpoise	Designated	14/04/2010	Directive	basisanalyse-2022-27-femern-baelt.pdf		
Horsens Fjord, havet øst				Harbour			Habitats	https://mst.dk/media/194015/n056-		
for og Endelave	WBBK	Belt Sea	460	porpoise	Designated	14/04/2010	Directive	basisanalyse-2022-27-horsens-fjord.pdf		
Røsnæs, Røsnæs Rev og				Harbour			Habitats	https://mst.dk/media/194315/n166-		
Kalundborg Fjord	WBBK	Belt Sea	57	porpoise	Designated	14/04/2010	Directive	basisanalyse-2022-27.pdf		
			<u>.</u>	Harbour			Habitats	https://mst.dk/media/194415/n193-		
Store Middelgrund	WBBK	Belt Sea	21	porpoise	Designated	14/04/2010	Directive	basisanalyse-2022-27-store-middelgrund.pdf		
	VVDDN		21		Designated	14/04/2010				
		Arkona		Harbour		04/46/2025	Habitats	https://mst.dk/media/194308/n206-		
Stevns Rev	WBBK	Basin	47	porpoise	Designated	31/12/2006	Directive	basisanalyse-2022-27-stevns-rev.pdf		

<u>.</u>									
								https://mst.dk/media/236414/n252-smv-for-	
Adler Grund og Rønne	Jastarnia	Arkona		Harbour			Habitats	natura-2000-plan-2022-27-adler-grund-og-	
Banke	Plan	Basin	321	porpoise	Designated	14/04/2010	Directive	roenne-banke.pdf	

# 16.3. Provide information on management measures, including regulations/guidelines, particularly relevant to small cetaceans in MPAs listed above. Including any temporal/spatial restriction of activities (i.e. seasonal fishery closures).

In order to monitor implementation of MPA management measures and make recommendations on best practice, we need to understand what management measures are being used and be aware of examples of what approaches are proving effective.

Site Name	Pressure	Measure (add measures per pressure per site as applicable)				
Site Name	(add pressures per site as applicable)					
Adler grund	Bycatch of the Baltic Prober harbour	Temporary closure of fishery: https://eur-				
-	porpoise	lex.europa.eu/legal-				
		content/EN/TXT/PDF/?uri=CELEX:32022R0303				

## 16.4. Provide details of existing or proposed monitoring schemes related to the effectiveness of MPAs / management measures listed above for small cetaceans.

The Danish Natura 2000 sites for harbour porpoises are monitored by aerial surveys and/or passive acoustic monitoring, see e.g.

Hansen, J. W., Høgslund, S., Bruhn, A., Buur, H., Carstensen, J., Dahl, K., Galatius, A., Göke, C., Hansen, J. L. S., Kyhn, L. A., Larsen, M. M., Markager, S., Mohn, C., Nielsen, R. D., Petersen, I. K., Strand, J., Stæhr, P. A., Sveegaard, S., Tairova, Z., ... Tougaard, J. (2023). Marine områder 2021: NOVANA. Aarhus Universitet. Videnskabelig rapport fra DCE - Nationalt Center for Miljø og Energi No. 529 <u>https://dce2.au.dk/pub/SR529.pdf</u>

#### 16.5. Relevant new research/work/collaboration relating to MPAs in your country.

In order to plan future approaches for MPA management and monitoring we need to be aware of current gaps and emerging issues.

(List initiatives/ projects (incl. PhD, MSc); publications (reports, theses, papers in journals, books) from any study; web links to other relevant information; include the species concerned, who did the work)

### **Section VI: Information and Education**

#### A. Education and outreach

**AIM:** to determine if there are gaps in the outreach and education activities and if additional material should be produced in your country or by the Secretariat (e.g. on certain themes, species, regions, languages, for certain target audiences). Relevant Resolutions: 8.13, 8.3, 8.2, 5.8,

The revised ASCOBANS Communication, Education and Public Awareness (CEPA) Plan (see <u>ASCOBANS/MOP9/Doc.5.3</u> Annex 1) was endorsed by the 9<sup>th</sup> Meeting of the Parties (2020). The purpose of the CEPA Plan is to identify realistic activities relevant to ASCOBANS and mandated by Parties, to be undertaken by the Secretariat, Parties, and relevant partners. It seeks a clearer focus amongst Secretariat, Parties, Partners, and stakeholders regarding objectives. (The previous CEPA Plan is available at AC17/Report/Annex10.) The purpose of this section is to highlight successes and to identify potential gaps in outreach and education activities and related materials.

#### Questions:

1.1. List education/outreach <u>activities</u> in the reporting period in your country, which are of relevance to conservation of small cetaceans in the ASCOBANS Area (e.g. activities during the International Day of the Baltic Harbour Porpoise in May)

Organizer	Name of activity (incl. translation to English, where applicable)	Date(s)	Location	Target audience (general public, scientists, children, fishers; other – please state)	Links (for further information)
Naturpark Lillebælt / Aarhus University	Permanent listening station	All year	Middelfart old harbour	general public	https://naturparklillebaelt.dk/lyt-til-lillebaelt/ Link to live streaming: https://www.youtube.com/embed/live_strea m?channel=UCs256_gIEb1mRzCxD2hTTx w
Fjord & Bælt	Aquarium hosting live harbour porpoises	All year	Kerteminde	general public	https://fjordbaelt.dk/

# 1.2. List current information/outreach <u>materials</u> produced in your country, which are of relevance to ASCOBANS Area and species.

Name of publication (incl. translation into English, where applicable)	Author(s)	Publisher	Year	Links (to download publication)	Can ASCOBANS distribute the link to publication for outreach purposes?
					□ No □ Yes
					□ No □ Yes

#### **1.3.** List other organizations engaged in outreach relevant to the ASCOBANS Area, incl. web links.

The Danish society for Nature Conservation, <u>https://www.dn.dk/home/english-page/</u> World Wide Fund for Nature Denmark, <u>https://wwf.dk/</u> Greenpeace, <u>https://www.greenpeace.org/denmark/</u>

# 1.4. List other initiatives/work/collaboration relevant to the ASCOBANS Area that are not included above.

# 1.5. List any gaps in your country's outreach relevant to the ASCOBANS Area. What would be needed to fill these gaps?

There are very little outreach focused on harbour porpoises except for the two listed in 1.1 above and the harbour porpoise safari organizers. Especially the Baltic Prober harbour porpoise could benefit from more awareness. It would take organizing interested parties (under 1.3) as well as scientists, to initiate a campaign as well as funding for time, material and so on.

# 1.6. Resources permitting, are there any materials that you think the ASCOBANS Secretariat should produce?

 $\Box$  No.

 $\boxtimes$  **Yes.** Please describe what, and why:

Perhaps national pamphlets on the knowledge on harbour porpoises specifically for each country.

#### Section VII: Other Matters

#### A. Other information or comments important for the Agreement:<sup>5</sup>

#### B. Difficulties in implementing the Agreement:

For the Baltic Prober harbour porpoise: Lack of knowledge on current abundance and distribution as well as the Swedish military refusing permits for deploying passive acoustic equipment in the Swedish part of the Baltic Prober.

#### C. Burning Issues:

It is essential to get SAMBAH-II funded and begun asap and to find a permanent solution for future funding. It is not sustainable that scientist from all around the Baltic should spend so much time trying to get funding from EU or other sources. For the SCANS surveys covering the neighbouring populations, the funding is now covered by national funding.

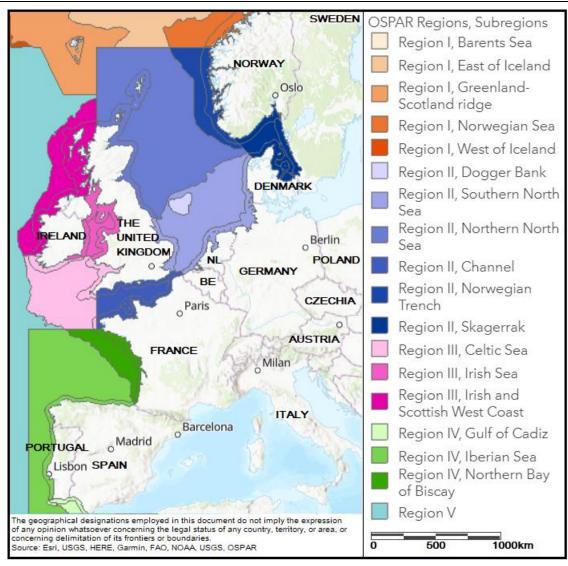
# Annex A: Overview of the sub-regions as defined by OSPAR and HELCOM, and areas as defined by ICES.

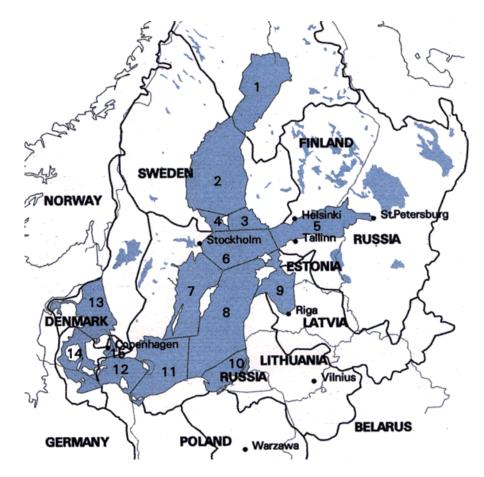
#### Drop-down menu sub-regions OSPAR and HELCOM

Choose an item.

OSPAR Region I Arctic Waters	OSPAR Region IV Bay of Biscay	HELCOM cont.
Norwegian Sea	and Iberian Coast	Gulf of Finland
	N. Bay of Biscay	Northern Baltic Proper
OSPAR Region II Greater North Sea	Iberian Sea	Western Gotland Basin
Dogger Bank	Gulf of Cadiz	Eastern Gotland Basin
Southern North Sea		Gulf of Riga
Northern North Sea	OSPAR Region V Wider Atlantic	□ Gdansk Basin
Channel		□ Bornholm Basin
Norwegian Trench		□ Arkona Basin
Skagerrak	HELCOM	□ Kattegat
	D Bothnian Bay	□ Belt Sea
OSPAR Region III Celtic Sea	D Bothnian Sea	□ The Sound
Celtic Sea	□ Archipelago Sea	
Irish Sea	Åland Sea	
Irish & Scottish W. Coast		

<sup>&</sup>lt;sup>5</sup> Opportunity to include other information relevant to the topics covered in this form but which are missing.





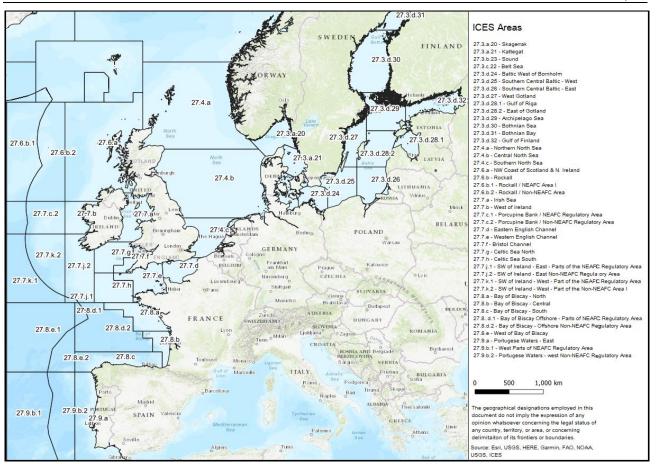
A map of the Baltic Sea drainage basins (catchment area), and marine subdivisions, including basins.

- 1. Bothnian Bay
- 2. Bothnian Sea
- Archipelago Sea
   Åland Sea
- 5. Gulf of Finland
- 6. Northern Baltic Proper
   7. Western Gotland Basin
- 8. Eastern Gotland Basin
- 9. Gulf of Riga
- 10. Gdansk Basin
- 11. Bornholm Basin
- 12. Arkona Basin
- 13. Kattegat
- 14. Belt Sea
- 15. The Sound

#### **Drop-down menu of ICES Areas**

Choose an item.

Area	Area Description	Area	Area Description
27.3	Skagerrak, Kattegat, Sound, Belt and Baltic Seas	27.7.b	West of Ireland
27.3.a	Skagerrak and Kattegat	27.7.c	Porcupine Bank
27.3.a.20	Skagerrak	27.7.c.1	Porcupine Bank / NEAFC Reg. Area
27.3.a.21	Kattegat	27.7.c.2	Porcupine Bank / Non-NEAFC Reg. Area
27.3.b,c	Sound and Belt Sea	27.7.d	Eastern English Channel
27.3.b.23	Sound	27.7.e	Western English Channel
27.3.c.22	Belt Sea	27.7.f	Bristol Channel
27.3.d	Baltic Sea	27.7.g	Celtic North Sea
27.3.d.24	Baltic West of Bornholm	27.7.h	Celtic Sea South
27.3.d.25	Southern Central Baltic – West	27.7.j	SW of Ireland – East
27.3.d.26	Southern Central Baltic – East	27.7.j.1	SW of Ireland – East – Parts of the NEAFC Reg. Area
27.3.d.27	West of Gotland	27.7.j.2	SW of Ireland – East – Non-NEAFC Reg. Area
27.3.d.28.1	Gulf of Riga	27.7.k	SW of Ireland - West
27.3.d.28.2	East of Gotland	27.7.k.1	SW of Ireland – West – Part of the NEAFC Reg. Area
27.3.d.29	Archipelago Sea	27.7.k.2	SW of Ireland – West – Part of the Non-NEAFC Area I
27.3.d.30	Bothnian Sea	27.8	Bay of Biscay
27.3.d.31	Bothnian Bay	27.8.a	Bay of Biscay North
27.3.d.32	Bay of Finland	27.8.b	Bay of Biscay Central
27.4	North Sea	27.8.c	Bay of Biscay South
27.4.a	Northern North Sea	27.8.d	Bay of Biscay Offshore
27.4.b	Central North Sea	27.8.d.1	Bay of Biscay Offshore – Part of the NEAFC Reg. Area
27.4.c	Southern North Sea	27.8.d.2	Bay of Biscay Offshore – Non-NEAFC Reg. Area
27.6	Rockall, NW Coast of Scotland and N. Ireland	27.8.e	Wet of Bay of Biscay
27.6.a	NW Coast of Scotland and N. Ireland	27.9	Portuguese Waters
27.6.b	Rockall	27.9.a	Portuguese Waters – East
27.6.b.1	Rockall / NEAFC Reg. Area I	27.9.b	Portuguese Water - West
27.6.b.2	Rockall / Non-NEAFC Reg. Area	27.9.b.1	Portuguese waters – West Part of the NEAFC Reg. Area
27.7	Irish Sea, West of Ireland, Porcupine Bank, Eastern and Western English Channel, Bristol Channel, Celtic Sea North and South, and Southwest of Ireland – East and West	27.9.b.2	Portuguese waters – Non-NEAFC Reg. Area
27.7.a	Irish Sea		



Code	Common name	Scientific name
AWSD	Atlantic white-sided dolphin	Lagenorhynchus acutus
BBW	Blainville's beaked whale	Mesoplodon densirostris
BD	Bottlenose dolphin	Tursiops truncatus
CBW	Cuvier's beaked whale	Ziphius cavirostris
CD	Short-beaked Common Dolphin	Delphinus delphis
FKW	False killer whale	Pseudorca crassidens
GBW	Gervais' beaked whale	Mesoplodon europaeus
HP	Harbour Porpoise	Phocoena
KW	Killer Whale	Orcinus orca
LFPW	Long-finned pilot whale	Globicephala melas
NBW	Northern bottlenose whale	Hyperoodon ampullatus
PKW	Pygmy killer whale	Feresa attenuata
PSW	Pygmy sperm whale	Kogia breviceps
RD	Risso's dolphin	Grampus griseus
RTD	Rough-toothed dolphin	Steno bredanensis
SBW	Sowerby's beaked whale	Mesoplodon bidens
SD	Striped dolphin	Stenella coeruleoalba
SFPW	Short-finned pilot whale	Globicephala macrorhynchus
TBW	True's beaked whale	Mesoplodon mirus
WBD	White-beaked dolphin	Lagenorhynus albirostris

### Annex B: Species covered by ASCOBANS

Drop down menu small cetacean species:

Choose an item.