Agenda Item 2

Review of New Information on Threats to Small Cetaceans

Document NR 5

2018 Annual National Report Belgium

Action Requested

Take note

Submitted by

Belgium



ASCOBANS National Reporting Format

1 January 2016 – 31 December 2018

As outlined in <u>ASCOBANS Resolution 8.1</u> on National Reporting, this format will cover the following Sections of the Annex to the Resolution, in addition to the standard Sections I and VII:

- Disturbance, incl. potential physical impacts (Section II B5, B6, B7)
- Habitat Change and Degradation incl. potential physical impacts (Section II C10, C11, C12, C13, C14)
- Area-based Conservation / Marine Protected Areas (Section II E16, E17)
- Education and outreach (Section VI A)

Exceptionally, the reporting period for questions here is 1 January 2016 – 31 December 2018, unless stated otherwise, to accommodate the requirements of the next Meeting of Parties to ASCOBANS, scheduled for 2020. The reports will inform discussion at the 25th Meeting of the Advisory Committee (AC25), which will be held in September 2019.

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. Please include relevant web links where requested.

Please note that numbering of the sections refers to numbering as in Resolution 8.1. This means the first section in the current form is number 5 (Cetacean Watching Industry) and not number 1.

High-level Summary of Key Messages

In your country, for the reporting period from 2016 to 2018, what does this report reveal about:

- 1. The most successful aspects of implementation of the Agreement?
 - International cooperation
 - Information of the public
- 2. The greatest challenges in implementing the Agreement?
 - International coordination of monitoring
 - High level of overlap between initiatives, commitments and obligations in different for a, leading to a reduction in efficiency
 - Cooperation with other actors at sea, eg. fisheries sector
- 3. The main priorities for future implementation of the Agreement?
 - Seeking a niche for action and activities for ASCOBANS, given that many aspects have been taken up in binding legislation in other fora

Section I: General Information

A. Country Information

- 1. Name of Party / Non-Party Range State: Belgium
- 2. Details of the Report Compiler

 Name: Jan Haelters

 Function: Scientific collaborator

 Organization: RBINS (MUMM)

 Postal Address: 3de en 23ste Linieregimentsplein, B-8400 Oostende, Belgium

 Telephone: 0032 (0)59 24 20 55

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

 □
 No

 □
 No

3. Details of contributor(s)

Topic(s) contributed to: Public awareness Name: Kelle Moreau Function: PR responsible Organization: RBINS (MUMM) Postal Address: Vautierstraat 29, B-1000 Brussels, Belgium Telephone: 0032 (0)2 627 190 Email: kmoreau@naturalsciences.be

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Topic(s) contributed to: Public awareness Name: Mieke Degloire Function: Marine expert Organization: DG Environment, Department of Marine Environment Postal Address: Victor Hortaplein 40/10, B-1060 Brussels, Belgium Telephone:

Email: mieke.degloire@health.fgov.be

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Topic(s) contributed to: Pollutant issues Name: Krishna Das Function: Senior Research Associate Organization: University of Liège, Laboratory of Oceanology Postal Address: Allée du 6 Août, B6C, B-4000, Liège, Belgium Telephone: (+32) 4 366 3321 Email: krishna.das@ulg.ac.be

Copy box if needed

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, 8.2, 8.1, 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. Continue with Question 5.2.
- 5.2. In the table below, provide the sub-regions, ports and operators from which commercial cetacean watching takes place. Please tick the boxes 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.

OSPAR / HELCOM	Deut	Operator	small cetacean watching			Link to website or	
Sub-region	Ροττ		Primary focus / target		Secondary	y contact details	
				species	focus		
				HP Harbour			
	Oostende	North Sea		porpoise Choose a		http://www.northse	
Choose a region	(southern North			species WBD White-	\boxtimes		
	Sea)	Felugics vzvv		beaked dolphin		upelugics.bc/	
				Choose a species			
				Choose a species			
Chaosa a region				Choose a species			
Choose a region				Choose a species			
				Choose a species			
				Choose a species			
Choose a region				Choose a species			
				Choose a species			
				Choose a species			
Choose a region Choose a region				Choose a species Choose a species			

Regions: This refers to the sub-regions as defined by the HELCOM and OSPAR. An overview of these and a map can be found in ANNEX A. **Target species:** chose from drop-down list provided, based on ASCOBANS list, see ANNEX B.

5.3. Does your country have a definition of the term 'harassment'?¹

- 🛛 No.
- □ **Yes.** Provide definition in table below:

5.4. Have there been any incidents of harassment to small cetaceans in the context of commercial cetacean watching reported to authorities?

- 🛛 No.
- \Box Yes. Provide information on table below.

Date:

In what context did this incidence occur?

What was the outcome for (a) the animal or (b) human? For example: behavioural response, injury, death.

Describe any legal procedures / court proceedings / convictions that took place:

Who is the responsible authority to receive such reports?

Link any link to websites or documentations of this incident:

If there were several reported incidents of harassment, copy the table and add another one.

- 5.5. 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?
 - □ No.
 - Solution: Yes. Please add below the type of measures and relevant information:

¹ 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.

5.6. 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 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 cetaceans and/or swimmers.

 \boxtimes No. Go to Question 5.9.

 \Box Yes. Provide information in the table below.

Where (location):
Species:
Operator + link to website:
Any reported incidents between cetaceans or swimmers?
□ No.
□ Yes. Please describe:

If several incidences have been reported please copy this table.

5.7. List any incidents of harassment to cetaceans 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:
In what context did this incidence occur?
What were the outcomes for (a) the animals or (b) humans? For example: behavioural response, injury, death.
Describe any legal procedures / court proceedings / convictions that took place:
Who is the responsible authority to receive such reports?
Link any link to websites or documentations of this incident:

If there were several reported harassments, copy the table and add.

- 5.8. Does your country have any mitigation measures (codes of conduct/guidelines) in place in the event of disturbance or harassment during swimming with small cetaceans in place?
 - □ No.
 - Solution: Yes. List below the type of measures and relevant information:

Ad hoc information to the public that advises against swimming with small cetaceans (occasionally when solitary bottlenose dolphin is present)

5.9. 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 cetaceans and/or swimmers.

\Box No. Go to Question 5.12.

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

Where (location)	Southern North Sea
------------------	--------------------

Date	Regularly, but very small number of dolphins involved (1-2?) -		
	summer		
Species	Bottlenose dolphin		
Links to websites	www.marinemammals.be; www.waarnemingen.be;		
	www.zeezoogdieren.org		
Any reported incidents between	None, but swimming with dolphins has taken place		
cetaceans or swimmers			

If several interactions have been reported please copy this table.

5.10. List any incidents of harassments to small cetaceans 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: None during the current reporting period (1 case in the past: 4 August 2007 – bottlenose dolphin injured)

In what context did this incidence occur?

What were the outcomes for (a) the animals or (b) humans? For example: behavioural response, injury, death.

Describe any legal procedures / court proceedings / convictions that took place:

Who is the responsible authority to receive such reports?

Link any link to websites or documentations of this incident:

If there were several reported incidents, copy the table and add.

5.11. Does your country have any mitigation measures (codes of conduct/guidelines) in place in the event of interactions with solitary sociable dolphins?

🗆 No.

Yes. List below the type of measures and relevant information:

Distribution of information (ad hoc) to the public through news items and press releases

This information will enable comparisons to be made across the Agreement area, and ultimately may lead to the provision of overall, consistent guidelines.

5.12. List initiatives/projects (including PhD, MSc) in 2016-2018 involving studies of the cetacean watching industry, "swim with small cetacean" operations, solitary sociable dolphin interactions and their possible effects on cetaceans (incl. title, organisation, lead author).

None

5.13. List publications (reports, theses, papers in journals, books) from any study in your country in 2016-2018 relating to small cetacean watching industry, swim with dolphins (or small cetaceans) operations, solitary sociable dolphin interactions and their possible effects on cetaceans.

None

5.14. Please provide web links to other relevant information in your country on cetacean watching industry, swim with dolphins (or small cetaceans) operations, solitary sociable dolphin interactions and their possible effects on cetaceans for this section.

Description	Web link

5.15. Has there been any other notable instances / issues related to cetacean watching industry in 2016-2018 in your country?

5.16. Is the perceived level of pressure from commercial small cetacean watching in your country increasing, decreasing, staying the same or unknown?²

To be done on a species by species basis where applicable (see Annex B) and by region where relevant (see Annex A).

Harbour porpoise		Staying the same	

Not applicable. Comments: Only very few dedicated trips per year

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, 8.2, 8.3, 8.1, 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 RIBs (rigid-hulled inflatable boats), hardhulled boats exceeding 10 knots in speed, yachts and personal water crafts such as jet skis and kayaks; 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.

Questions:

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

□ No. Go to Question 6.3. **Yes.** Provide information in the table below:

Type of information: Information on recreational fishing available

Web link or other relevant link to data: VLIZ (2015). Recreational sea fishing in Belgium: Monitoring the capacity, intensity and density at sea (first results). VLIZ Beleidsinformerende nota 2015 004. Ostend. 20 pp.

http://www.compendiumkustenzee.be/en/new-policy-informing-brief-vliz-sheds-light-belgian-recreationalsea-fishery

² This is a question based on Resolution 8.1, Annex 1.

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: small area
- □ **Yes.** Provide information in the table below:

Which area: (Please refer to the overview of OSPAR & HELCOM sub-regions in Annex A, if possible.)

Type of information: (e.g. maps, GIS files, reports)

Is the data available online?
No. Comments:
Yes. Provide link:

- 6.3. Was 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:	Location:			
In what context did this incidence occur? For example: what kind of recreational activity.				
What were the outcomes for (a) the animals or (b) humans? For example: behavioural response, injury, death.				
Description of any legal procedures / court proceedings / convictions:				
Link to websites or any documentatio	ns of this incident:			

- 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 cetaceans through recreational sea use?
 - \Box No.
 - □ **Yes.** Provide information in table below:

There is a legislation indicating that deliberate disturbance of cetaceans is not allowed.

6.5. List initiatives/projects (including PhD, MSc) in 2016-2018 involving studies on the disturbance or harassment of cetaceans through recreational sea use in your country (incl. title, organisation, lead author, web link).

None

6.6. List publications (reports, theses, papers in journals, books) in 2016-2018 from any study in your country relating to disturbance or harassment of cetaceans through recreational sea use .

None	
6.7. Please provide web links to other relevant information for this section.	_

Description

1
1

6.8. Have there been any other notable instances / issues in your country in the reporting period?

None

6.9. Is the perceived level of pressure from recreational sea use in your country increasing, decreasing, staying the same or unknown?³

To be done on a species by species basis where applicable (see Annex B) and by region where relevant (see Annex A).

Scientific name of the species	Increasing	Decreasing	Staying the same	Unknown

Not applicable. Comments: unknown – number of vessels probably increasing

B. Disturbance (incl. potential physical impacts)

7. Other Sources of Disturbance

AIM: to identify new sources of disturbance that can be a threat to small cetaceans.

Relevant Resolutions: 8.9, 8.1, 6.1

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

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

🛛 No.

□ Unknown.

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

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

Date:	Location:				
Description of the event:					
What were the outcomes for (a) the animals or (b) humans? For example: behavioural response, injury, death.					
Describe and mitigation measures operating:					
Description of any legal procedures / court proceedings / convictions:					
Link to websites to relevant information:					

³ This is a question based on Resolution 8.1, Annex 1.

7.2. List initiatives/projects (including PhD, MSc) in 2016-2018 involving studies on other sources of disturbance in your country (incl. title, organisation, lead author, web link).

There is a programme to study the disturbance due to underwater noise linked to offshore windfarm construction. The monitoring reports can be found at https://odnature.naturalsciences.be/mumm/en/windfarms/

7.3. List publications (reports, theses, papers in journals, books) in 2016-2018 from any study in your country relating to other sources of disturbance.

See <u>https://odnature.naturalsciences.be/mumm/en/windfarms/</u> monitoring reports 2009, 2010, 2011, 2012, 2016, 2017, 2018, and integrated report in 2013 (pdf available).

7.4. Please provide web links to other relevant information.

Description	Web link

7.5. Has there been any other notable instances / issues in your country the reporting period?

None

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

10. Pollution and hazardous substances (incl. microplastics)

AIM: to illustrate progress, during the reporting period, on understanding, monitoring and mitigating impacts on cetaceans of important and emerging pollution-related hazards.

Relevant Resolutions: 8.9, 8.8, 8.7, 8.4, 8.3, 8.2, 8.1, 7.4, 7.1, 6.1, 5.7

Our oceans have been subject to a wide range of different types of pollution over the last decades. Toppredators 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 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 the environment and their impacts are presently poorly understood.

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

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

NOTE: 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 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. ⊠ Yes.

Any comments:

Project-based for the moment, but there are initiatives at OSPAR to incorporate this in a coherent monitoring programme.

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: Thierry Jauniaux
Role in monitoring: distribution of samples after necropsy
Postal Address: Department of Pathology, Fundamental and Applied Research for Animals & Health FARAH,
University of Liege, Sart Tilman B.43, B-4000 Liege, Belgium
Contact Person: Thierry Jauniaux
Telephone: 0032 (0)4 366 40 78
Fax:
Email: t.jauniaux@uliege.be
Weblink:
Name: Krishna Das
Role in monitoring: Analysis of samples
Postal Address: University of Liège, Laboratory of Oceanology, Allée du 6 Août, B6C, B-4000, Liège, Belgium
Contact Person: Krishna Das
Telephone: (+32) 4 366 3321

Telephone: (+32) 4 366 3321 Fax: Email: krishna.das@ulg.ac.be Weblink:

10.3. Select the small cetacean species that were covered by your monitoring program during the reporting period from 2016 to 2018. Mark the year in which the species was sampled with an x.

2016	2017	2018	Species ⁴	2016	2017	2018	Species
х	x	х	Harbour porpoise	1			Narwal
1	1		BD Bottlenose dolphin	1			CD Short-beaked Common dolphin
	1	1	WBD White-beaked dolphin				Choose a species

Any comments:

Very few animals with the exception of porpoises

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)

Any comments:

Additional expertise on pollutants in bottlenose dolphins from the English Channel by Krishna Das (University of Liège).

⁴ Please refer to Annex B for list of species, including scientific names.

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	subregions?	Bornholm Basin
Norwegian Trench		Arkona Basin
Skagerrak	Skagerrak HELCOM	□ Kattegat
	□ Bothnian Bay	□ Belt Sea
OSPAR Region III Celtic Sea	Bothnian Sea	\square The Sound
Celtic Sea	Archipelago Sea	
Irish Sea	🗖 Åland Sea	
Irish & Scottish W. Coast		

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

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

Any comments:

10.7. Does your country determine microplastics in 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? \boxtimes **No** \square **Yes** *If yes, please provide details and weblinks or upload document.*

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. List initiatives/projects (including PhD, MSc) in 2016-2018 in your country involving studies on impact of pollution and hazardous substances (incl. microplastics) on small cetaceans (incl. title, organisation, lead author.

Stomach content is regularly monitored for the presence of plastic particles.

Levels of pollutants in tissues monitored on a project basis.

Thesis focusing on seals but comparison is being made with harbour porpoises: France Damseaux (2016-2019). Metallic trace elements and stable isotopes of carbon, nitrogen and sulfur as ecological tracers in the harbour seal and the grey seal in the North Sea. PhD thesis supervised by Krishna Das. ULiege. Defense scheduled the 14th October 2019.

10.9. List publications (reports, theses, papers in journals, books) and other evidence from your country in 2016-2018 relating to the impact of pollution and hazardous substances (incl. microplastics) on small cetaceans.

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 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.

Publication on bottlenose dolpins in the English Channel, with a Belgian affiliation (University of Liège): Zanuttini, C., Gally, F., Scholl, G., Thomé, J-P, Eppe, G. & Das, K., In press. High pollutant exposure level of the largest European community of bottlenose dolphins in the English Channel. Scientific Reports.

10.10. 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).

10.11. Provide web links to other relevant information to this section.

Description	Web link

10.12. Has there been any other notable instances / issues in your country in the reporting period?

None

10.13. Is the perceived pressure from pollution and hazardous substances in your country increasing, decreasing, staying the same or unknown?⁵

To be done on a species by species basis where applicable (see Annex B) and by region where relevant (see Annex A).

Scientific name of the species	Increasing	Decreasing	Staying the same	Unknown
Harbour porpoise				х

Not applicable. Comments: pollution monitoring should be internationally coordinated (see eg. OSPAR initiative)

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, 8.1, 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 risk, it is important to know what kind of vessels are involved in the strike, in particular the vessel speed as well as the type and size of vessel. But it is also

⁵ This is a question based on Resolution 8.1, Annex 1.

important to have information on the cetaceans involved, in particular if the animals were engaged in a particular 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 survival chances. 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 look at the percentage of animals in a photo-identification catalogue that show 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 Parties.

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 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. Go to **Question 11.2**.

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

Has the incident of a ship strike with a small cetacean been submitted to the IWC Ship Strike Database?

Area: (check with OSPAR/HELCOM map in Annex A)

Choose a region

Species name (scientific), if known (see Annex B):

Date of incident:

Contact: (*if available contact details of the observer*)

Description of the observed incidence:

(Group size if other cetaceans presence, was the cetacean alive or dead after the collision, was the animal retrieved, indications of animal being dead before collusion, any other information; if known, provide information on the vessel type, name, speed of the vessel, any damage to the vessel or injuries to people)

If animal was retrieved and necropsied, is there a necropsy report for this cetacean?
No Yes If yes, provide link/contact details:

List any other relevant links to websites or other information, photographs or publications, if available:

11.2. Are there reports in your country of vessel strikes from necropsies of stranded animals for 2016-2018?

\boxtimes No. Go to Question 11.3.

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

Overview of necropsied small cetaceans showing evidence of ship-strike.

Necropsied animals

Year	Sub-area (OSPAR / HELCOM)	Species	Number of animals showing ship strike markings ⁶	Number of animals with	Number of animals with cause of death ship strike		
				death	possible	certain	
	Choose a region	Choose a species					
	Choose a region	Choose a species					
	Choose a region	Choose a species					
Provide source of information and database link if applicable:							

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:

General necropsy protocol

11.4. Is there evidence in your country from existing photo-identification catalogues of small cetaceans of any non-lethal ship strike for the 2016-2018?

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.

🛛 No.

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

Overview of ship strike evidence in photo-identification catalogues

	Location		Photo-identified animals in the catalogue				
Year	Sub-area (OSPAR / HELCOM)	Species	# individual animals in the Species photo- identification		# animals showing ship strike markings (e.g. scars)		
			catalogue	possible	certain	Unknown	
	Choose a region	Choose a species					
	Choose a region	Choose a species					
	Choose a region	Choose a species					

11.5. Do you have any other photographs or evidence of ship strikes outside of photo-identification catalogue? ⊠ No □ Yes

Provide links where applicable

11.6. List initiatives/projects (including PhD, MSc) involving studies of ship strike and its possible effects on small cetaceans for 2016-18 in your country (incl. title, organisation, lead author)

None

⁶ 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).

11.7. List publications (reports, theses, papers in journals, books) from your country relating to small cetacean ship strikes

None

11.8. List any management / policy actions related to mitigating ship strike for small cetaceans (rerouting, tracking animals, ship speed limits) in your country

None

11.9. Has there been any other notable instances / issues of ship strike on small cetaceans in your country in the reporting period?

None

11.10. Is the perceived level pressure from ship strikes on small cetaceans in your country increasing, decreasing, staying the same or unknown?⁷

To be done on a species by species basis where applicable (see Annex B) and by region where relevant (see Annex A).

Scientific name of the species	Increasing	Decreasing	Staying the same	Unknown

□ **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 on small cetaceans of important and emerging climate-change-related hazards.

Relevant Resolutions: 8.9, 8.4, 8.3, 8.2, 8.1, 7.4, 7.1, 6.1, 5.7

It is certain that climate change is altering the habitat of cetaceans. However, our understanding on how the predicted changes will impact different species and populations is still lacking. CMS⁸ highlights the importance on addressing potential issues through the engagement of researchers to better understand the underlying processes, as well as conservation managers and policy makers to monitor changes and to mitigate negative impacts. Focussing on tangible climate change effects relevant to cetaceans, such as ocean warming, prey depletion / prey range shifts, ocean acidification, increased frequency and intensity of ocean storms, changes in sea ice, weakening of the North Atlantic Drift, we need to 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 hereby on those actions specifically regarding cetaceans as

⁷ This is a question based on Resolution 8.1, Annex 1.

⁸ <u>CMS Resolution 12.21</u> on Climate Change and Migratory Species.

well as the most likely impacts on their habitat and prey. Climate change represents possibly the most important future threat to the status of cetaceans in the ASCOBANS region. Direct effects may arise due to ocean warming, resulting in (generally northward) in distribution shifts 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 monitor climate effects on cetaceans?⁹

Climate change will have a multiplicity of possible direct and indirect effects on 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 cetaceans.

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

12.2. Which effects has your country been monitoring in the reporting period from 2016 to 2018?

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

Monitoring activity	Comments (if possible, provide e.g. contact / link to project)
□ Changes in small cetacean abundance	
\Box Changes in small cetacean distribution	
\Box Changes in small cetacean migration or movement range	
\Box Changes in small cetacean migration or movement timing	
□ Changes in small cetacean community structure	
\Box Changes in reproductive success and timing in small cetaceans	
□ Changes in prey (fish) abundance and distribution	
□ Changes in timing of prey (fish) spawning and migration	
□ Changes in fishing effort	
Changes in the occurrence of pathogens (from sampled individuals)	
□ Incidences of algal blooms (if yes, where; specify year)	

12.3. List new initiatives / projects which provide evidence / data about climate change effects on small cetaceans in your country in 2016-2018 (title, organization, lead author; include the species concerned, the climate change effect observed, who did the work)

Provide web links if available.

⁹ This refers to direct and indirect effects.

12.4. List new reports/publications which provide evidence / data of climate change effects on small cetaceans in your country in 2016-2018 (title, organization, lead author; include the species concerned, the climate change effect observed, who did the work)

Provide web links if available.

12.5. Are there any actions / measures in your country to reduce identified climate change impacts on small cetaceans (directly or indirectly)?

🛛 No.

□ **Yes.** Please describe below:

12.6. List any gaps in monitoring / mitigation of climate change effects on cetaceans

In order to plan future monitoring and mitigation we need to be aware of current gaps and emerging issues.

12.7. List any emerging potential issues related to climate change effects on small cetaceans

12.8. Has there been any other notable instances / issues on climate change effects on small cetaceans in your country in the reporting period?

After the appearance in Belgium of a narwhal (2016) and a bowhead whale (2017), the potential link with dwindling Arctic ice was covered in:

https://www.canvas.be/maatschappij/jan-haelters-over-de-narwal

and in: Haelters, J., 2017. Arctic climate fugitives? Lutra 60(1): 1-3.

12.9. Is the perceived level of pressure from climate change to small cetaceans in your country increasing, decreasing, staying the same or unknown?¹⁰

To be done on a species by species basis where applicable (see Annex B) and by region where relevant (see Annex A).

Scientific name of the species	Increasing	Decreasing	Staying the same	Unknown

Not applicable. Comments: only circumstantial anecdotal data

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 causing physical habitat change and better understanding their relative impacts will help shape any necessary mitigation action required.

Relevant Resolutions: 8.11, 8.9, 8.6, 8.4, 8.3, 8.2, 8.1, 7.1, 6.2, 6.1, 5.7

¹⁰ This is a question based on Resolution 8.1, Annex 1.

Human activities in the Agreement area have the potential to impact upon small cetaceans. Tracking those activities that cause physical habitat change and obtaining a better understanding of their relative impacts will help shape any necessary mitigation action.

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 cetaceans, including information provided in National Reports, taking into account the work done by other organisations.

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 2016-18.

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.

Activity: Dredging, sand extraction, windfarm construction, cable laying, ...

Which area: Belgian waters

Type of information: Maps, shapefiles

Is the data available online? D No. Comments:

Yes. Provide link: <u>http://odnature.naturalsciences.be/marine-atlas/data</u>

13.2. Does your country have any cases of impacts on physical habitat change (e.g. dredging, marine construction, coastal construction) for small cetaceans for 2016-18?

🛛 No.

□ **Yes.** Describe in the table below:

Effect of operational wind farms on marine mammals still unclear

13.3. Does your country have any mitigation measures to prevent impacts on small cetaceans during physical habitat change activities (e.g. dredging, marine construction, coastal construction)? No.

Yes. Describe in the table below:

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

Permit system including conditions to avoid and minimize disturbance during construction and monitoring involving seismic (see <u>https://odnature.naturalsciences.be/mumm/</u>)

13.4. List initiatives/projects (including PhD, MSc) in your country in 2016-2018 involving studies of impacts from physical habitat change on small cetaceans (incl. title, organisation, lead author).

13.5. List publications (reports, theses, papers in journals, books) in 2016-2018 in your country relating to potential impacts of physical habitat change on small cetaceans.

References to monitoring reports in https://odnature.naturalsciences.be/mumm/en/windfarms/

13.6. Provide web links to other relevant information.

13.7. Has there been any other notable instances / issues in your country regarding physical habitat change in the reporting period?

None

13.8. Is the perceived level of pressure from physical habitat change) in your country increasing, decreasing, staying the same or unknown?¹¹

To be done on a species by species basis where applicable (see Annex B) and by region where relevant (see Annex A).

Harbour porpoise	Increasing		

□ **Not applicable.** Comments:

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

14. Other issues

Question:

14.1. List any other issues not mentioned above.

E. Area-based Conservation / Marine Protected Areas

16. List of protected areas, e.g. Natura 2000 sites

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

Relevant Resolutions: 8.2, 8.1, 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) as a tool to achieve conservation goals. Part of ASCOBANS remit is to provide expert advice for 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, and to implement appropriate management actions in these areas on their own or in the context of other intergovernmental bodies to ensure the protection of small cetaceans.

¹¹ This is a question based on Resolution 8.1, Annex 1.

To monitor the progress of such work to fulfil the obligations of Resolution 5.7 (2006) and actions in the 2017-2020 workplan, ASCOBANS requires information (e.g. location, species, status, spatial data, management plans and monitoring) on existing and proposed marine protected areas with 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, taking MPAs beyond being just 'paper parks'.

Questions:

16.1. Please complete and/or update the following table, providing details of existing or proposed MPAs with cetaceans forming part of the selection criteria.

Please copy the table for each MPA.

None					
ASCOBANS Action Plan	Jastarnia PlanNorth Sea Plan	 WBBK Plan Not Applicable 			
OSPAR / HELCOM sub-area	Choose a region				
Size (m ²)					
Cetacean species forming part of selection criteria	Not for any of the MPA's				
MPA status	 Designated Submitted Under consultation 	 Recommended Other, please specify: 			
Date of designation (if applicable)					
Legislation / Directive	(e.g. Habitats Directive)				
Are there management measures in place?	□ No. □ Yes. Provide link:				
Link to shapefiles and/or or online map					
Link to any other online information					

16.2. Provide information on management measures particularly relevant to small cetaceans in MPAs listed above. Including any temporal/spatial restriction of activities (i.e. seasonal fishery closures, changes to vessel activity etc.).

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.

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

16.4. Recommend any best practice approaches to management (threat mitigation) of MPAs listed above for small cetaceans.

16.5. List new initiatives/projects involving studies of cetaceans relating to MPAs in your country (title, organization, lead author; include the species concerned, who did the work)

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

Provide web links if available.

16.6. List new reports/publications involving studies of cetaceans relating to MPAs in your country (title, organization, lead author; include the species concerned, who did the work)

Provide web links if available.

16.7. Provide web links to other relevant information.

Section VI: Information and Education

A. Education and outreach

AIM: to determine if there are gaps in the outreach and education activities and if further materials should be produced in your country or by the Secretariat (e.g. on certain themes, species, regions, languages, for certain target audiences).

Relevant Resolutions: 8.3, 8.2, 5.8, 8.13

ASCOBANS Communication, Education and Public Awareness (CEPA) Plan¹² was presented at the 17th Meeting of the Advisory Committee. The purpose of the CEPA Plan was to identify actions and activities to be undertaken by the Secretariat, Parties and relevant partners. In addition, the Advisory Committee recommended the following overarching principles: (i) Carefully identifying the audience – e.g. children, students, policy makers, fishers – and making materials appropriate to each particular audience; (ii) Noting that different localities, communities and cultures may require different approaches; (iii) Preparing outreach and education materials in relevant languages (including on the website); and (iv) Building joint initiatives with 'partner' organizations and others. The CEPA aimed for more effective engagement with audiences, greater impact upon audiences, closer relationship with key conservation issues; more effective connection with educational, fundraising and promotional initiatives; and more effective and easily understood communication of relevant areas of science. In this spirit, the purpose of this section is to highlight successes and to identify potential gaps in outreach and education activities and related materials.

Questions:

1. Please list education/outreach <u>activities</u> in 2016-2018 in your country, which are of relevance to conservation of small cetaceans in ASCOBANS' remit (e.g. activities during the International Day of the Baltic Harbour Porpoise in May)

Organiser	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)
RBINS & VLIZ	Infobooth on	8 June 2017	De Grote Post,	General public	

¹² See <u>AC17 Report</u>, Annex 10 (starting on page 65).

Organiser	Name of activity	Date(s)	Location	Target audience	Links (for further
- 5	(incl. translation			(general public,	information)
	to English, where			scientists, children,	,
	applicable)			fishers; other –	
				please state)	
	marine		Ostend, Belgium		
	mammals, incl.				
	porpoise and				
	dolphins @				
	SEAfety First,				
	World Oceans				
	Day 2017				
RBINS &	Infobooth on	12 Sep	Provinciedomein	General public	
Natuurpunt	marine	2017	Huizingen,		
Studie	mammals, incl.		Belgium		
	porpoise and				
	dolphins @ Wild				
	in Vlaanderen				
RBINS &	Infobooth on	6 June 2018	BOZAR, Brussels,	Scientists, policy	
EUROCEAN	marine		Belgium	makers & general	
	mammals, incl.			public	
	porpoise and				
	dolphins @				
	commemoration				
	event Mario				
	Ruivo				
University of	Marine Mammal	26 March	Institut de	Science teachers and	https://marine-
Liège (partner)	education: an EU-	2019	Zoologie, Liège	their students (12-18	mammals.com/
	funded project to	(symposium		years)	
	further increase	in the			
	young people's	frame of			
	interest in	this project)			
	natural science				
	and to prevent				
	shortage of				
	specialists in				
	science,				
	technology,				
	engineering and				
	mathematics				
	(STEM)				

2. Please list current information/outreach <u>materials</u> produced in your country, which are of relevance to ASCOBANS' remit 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?
Zeezoogdieren in België in 2015 (Marine Mammals in Belgium in 2015)	Haelters, J., T. Jauniaux, F. Kerckhof, M. Potin & T. Vandenberghe	RBINS	2016	http://www.marinemammals.be/reports	□ No ⊠ Yes
Strandingen en waarnemingen van zeezoogdieren	Haelters J., F. Kerckhof, B. Rumes, M. Potin & T	RBINS	2017	http://www.marinemammals.be/reports	□ No ⊠ Yes

en opmerkelijke vissen in België in 2016 (Strandings and Observations of Marine Mammals and remarkable fish in Belgium in 2016)	Jauniaux				
Er leeft wat in zee Hoe de rijke biodiversiteit van onze Noordzee beschermen en herstellen? / La mer regorge de vie Comment protéger et retablir la riche biodiversité de notre mer du Nord? (EN: There's something living in the sea How to protect and restore the rich biodiversity of our North Sea?, contains chapter on harbour pornoise)	Van de Velde, M. e.a. (FPS Public Health, Food Chain Safety & Environment, RBINS, VLIZ, ILVO & INBO)	FPS Public Health, Food Chain Safety	2017	https://www.health.belgium.be/nl/brochure- er-leeft-wat-zee	□ No ⊠ Yes
Strandingen en waarnemingen van zeezoogdieren en opmerkelijke vissen in België in 2017 (Strandings and Observations of Marine Mammals and remarkable fish in Belgium in 2017)	Haelters J., F. Kerckhof, K. Moreau, M. Potin, M. Doom & T. Jauniaux	RBINS	2018	http://www.marinemammals.be/reports	□ No ⊠ Yes
Strandingen en waarnemingen van zeezoogdieren en opmerkelijke andere soorten in België in 2018 [Strandings and sightings of marine mammals and	Haelters, J., F. Kerckhof, K. Moreau, B. Rumes, M. Potin, T. Jauniaux & D. Vercayie	RBINS	2019	http://www.marinemammals.be/reports	□ No ⊠ Yes

remarkable			
other species in			
Belgium in			
2018]			

3. List other organisations engaged in outreach relevant to ASCOBANS' remit, incl. web links.

4. Please list other initiatives relevant to ASCOBANS' remit that are not included above.

Actions with regards to marine litter:

- Proper Strandlopers (<u>http://www.properstrandlopers.be/</u>)

- Eneco Clean Beach Cup
- Action plan marine litter of the federal government
- Fishing for litter project of the federal government
- Integral Actionplan Marine litter of the Flemish government

Temporary exhibit on whales and dolphins and conservation issues at the coastal town of De Haan in the frame of the stranding of a fin whale in 2018 (June – September 2019)

Several news messages related to the sea and marine mammals by the federal government (selection):

- https://www.health.belgium.be/nl/news/natura-2000-dag-natuurbescherming-ook-op-zee (mentioning the harbour porpoise)
- https://www.health.belgium.be/nl/news/meer-dan-37-ondertekenaars-van-de-brusselse-verklaring-overklimaatverandering-en-oceanen (on climate change and oceans)
- https://www.health.belgium.be/nl/news/conferentie-climate-change-and-oceans-preservation
- https://www.health.belgium.be/nl/news/20-jaar-wet-marien-milieu-start-van-de-zee-begint-bij-jezelf (mentioning the harbour porpoise)
- 5. List any gaps in your country's outreach relevant to ASCOBANS' remit. What would be needed to fill these gaps?
- **6.** List outreach activities foreseen for 2020, in which you would like ASCOBANS to be involved. *The next Meeting of the Parties to ASCOBANS is scheduled to be held in 2020.*
- 7. Resources permitting, are there any materials that you think the ASCOBANS Secretariat should produce?
 - □ No.

Yes. Please describe what, and why:

8. Has there been any notable instances / issues in your country related to education and outreach in the reporting period?

Section VII: Other Matters

B. Difficulties in implementing the Agreement:

Large overlap with other initiatives and legally binding legislation, eg. marine strategy framework directive and several initiatives covering bycatch.

Lack of involvement of the fishing industry/administration.

¹³ Opportunity to include other information relevant to the topics covered in this form but which are missing.

ANNEX A: Overview of the sub-regions as defined by OSPAR and HELCOM.

Choose an item.

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	subregions?	Bornholm Basin
Norwegian Trench		Arkona Basin
Skagerrak	HELCOM	□ Kattegat
	D Bothnian Bay	□ Belt Sea
OSPAR Region III Celtic Sea	Bothnian Sea	\square The Sound
Celtic Sea	Archipelago Sea	
Irish Sea	Åland Sea	
Irish & Scottish W. Coast		





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

- 1. Bothnian Bay
- 2. Bothnian Sea
- 3. Archipelago Sea
- 4. 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

ANNEX B: Species covered by ASCOBANS.

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 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

Drop down menu Small Cetacean Species:

Choose an item.