

Agenda Item 2

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

Document NR.10

2021 Annual National Report: Sweden

Action Requested

- Take note
- Comment

Submitted by

Sweden





ASCOBANS

2021 ASCOBANS National Report

The deadline for the submission of National Reports is **31 March 2022**.

As outlined in ASCOBANS Resolution 8.1 (Rev.MOP9) National Reporting, this form will cover the year 2021 (Year 2 of the cycle), and the following topics included in the Annex to the Resolution, in addition to the standard Sections I (General Information) and VII (Other Matters):

Bycatch (Section II A1)

Resource Depletion (Section II A2)

Marine Debris (Section II C9)

Surveys and Research (Section III A: Biological Information, B: Monitoring Programmes, C: Other Research)

Use of Strandings Records (Section IV A: Stranding Network and Strandings)

The National Reports submitted will inform discussions at the 27th Meeting of the ASCOBANS Advisory Committee in late 2022.

- All questions apply to the reporting period of 1 January - 31 December 2021.

- 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 list provided, based on ASCOBANS species list, see **Annex B**.

- Throughout the form, please include relevant web links where applicable.

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: ascobans.secretariat@ascobans.org.

High-level Summary of Key Messages

In your country, for 2021 (Year 2), what does this report reveal about:

The most successful aspects of implementation of the Agreement?(List up to five items)

>>> Updated action plan for harbour porpoise published 2021

MPA:s with harbour porpoise as pointed out including MPA management plans

The further development of the health and disease monitoring program for marine mammals which includes harbour porpoises

The greatest challenges in implementing the Agreement? (List up to five items)

>>> Bycatch mitigation and monitoring bycatch

Indicator development and thresholds (MSFD)

Underwater noise, thresholds and mitigation measures

Protection of mobile threatened species outside protected areas

Monitoring effect of measures

The main priorities for future implementation of the Agreement? (List up to five items)

>>> Monitoring bycatch in a more effective and covering way even if it is challenging

I. General Information

A. Country Information

Name of Party / Non-Party Range State:

>>> Sweden

Details of the Report Compiler

Name:

>>> Susanne Viker

Function:

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

Yes

Details of contributor(s)

Please provide the following details per contributor:

Topic(s) contributed to, Name, Function, Organization, Postal Address, Telephone, and Email.

>>> Julia Carlström, Curator, Swedish Museum of Natural History, Phone: +46 (0)8 519 541 90, E-mail: julia.carlstrom@nrm.se

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II. Habitat Conservation and Management (threats and pressures on cetaceans)

A. Fisheries-related Threats

1. Bycatch

AIM: to illustrate progress on understanding, monitoring and mitigating bycatch of small cetaceans.

Relevant Resolutions: 9.2, 8.5 (Rev.MOP9), 8.4 (Rev.MOP9), 8.3, 7.3, 7.1, 6.1, 5.8, 5.7, 5.5, 3.3

Bycatch, the entanglement of an animal in fishing gear, is identified as a major cause of mortality in small cetaceans. Every effort should be made to reduce bycatch towards zero as quickly as possible. Parties to ASCOBANS have agreed on a number of resolutions that highlight the importance of mitigating bycatch of small cetaceans in the Agreement Area, as available data indicates that levels of bycatch pose a considerable threat to their conservation status. Parties have agreed that modifications of fishing gear and relevant practices shall be applied in order to reduce negative impacts where data indicates unacceptable interaction. The Agreement Area requires improved monitoring, collation of data, and consideration of appropriate mitigation measures, while also taking into account similar work in other areas.

To better understand the extent of the impact of bycatch on small cetaceans, monitoring and mitigation measures in place, and ongoing work in the Agreement Area, countries are requested to provide relevant information.

Note: This section includes bycatch in recreational fisheries.

1.1. How is bycatch assessed/monitored in your country?

For the reporting period, please identify whether the following methods were used and the percentage (by monitoring method, of total bycaught animals, by gear type if applicable):

Dedicated observer schemes

Fisheries observes

Remote Electronic Monitoring

Self-reporting by fishermen

Pathological investigation

Assessment at stranding site

>>> Observer schemes as part of the monitoring programme, mandatory reporting by fishermen and pathological investigations of stranded and by-caught animals

1.2. Which species of small cetaceans were recorded as bycatch by commercial fishing in the reporting period?

Please provide details in **this table** - download and then attach it using the blue 'link' button below.

Hold 'Ctrl' to select multiple options.

HP - Harbour Porpoise

1.3. Which species of small cetaceans were recorded as bycatch by recreational fishing in the reporting period?

Please provide details in **this table** - download and then attach it using the blue 'link' button below

Hold 'Ctrl' to select multiple options.

Other

>>> No data

1.4. Has there been any notable incidents/issues related to bycatch during the reporting period in your country?

No

1.5. Are there are mitigation measures in place?

If you select 'Yes', please provide details in **this table** - download and then attach it using the blue 'link' button below.

Yes

The following measures are in place:

>>> Acoustic deterrent devices

Fishing regulation in marine protected areas

1.6. Have there been changes in fishing effort (for fisheries known to have an impact) in the

reporting period?

Yes

Please provide details:

>>> Fishing ban due to decreasing cod stocks in some areas

1.7. Relevant new research/work/collaboration on bycatch 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.

>>> Publications:

Niu J., Berggren P., Sveegaard S., Dietz R., Owen K., Teilmann T., Carlström J. (In review) Disentangling the factors affecting harbor porpoise bycatch in the Swedish Skagerrak and Kattegat Seas. *Marine Mammal Science*.

Owen K, Authier M, Genu M, Sköld M, Carlström J (2022) Estimating a mortality threshold for the Belt Sea population of harbour porpoises. Report by the Swedish Museum of Natural History. Report number 3:2022. 16 pp.

Projects:

SAMBAH II LIFE application was submitted in February 2021, and rejected. With regards to bycatch, the planned aims of the project were: to investigate four alternative methods to monitor fishing effort, to produce bycatch risk maps for the entire Baltic Proper harbour porpoise population management area, and to hold a workshop on the current state-of-the-art on bycatch mitigation. Sweden has five partners (SwAM, NRM, SLU-Aqua, SLU-FRM, CCB) in the consortium. Additional work to locate alternative sources of funding for the project is ongoing.

1.8. Is the perceived level of pressure from bycatch in your country increasing, decreasing, staying the same or unknown?

Decreasing

2. Resource Depletion

AIM: to determine areas where, and to what extent, depletion of fish stocks have occurred during the reporting period. In addition; identify ongoing mitigation efforts regarding detrimental implications for small cetaceans.

Relevant Resolutions: 8.9, 8.3, 7.1, 6.1

Depletion in fish stocks due to overfishing and other factors generates pressure on the favourable conservation status of small cetaceans (through possible food shortage). More integrated management and reductions in fishing effort (also prompted by concern about fish stock depletion or other ecosystem considerations) have been encouraged, especially in areas of known risk. Further research, effective fishery regulations and innovation within certain fishing methods are considered to be helpful steps towards mitigating this pressure.

Parties to ASCOBANS have agreed on a number of resolutions that (1) determine the impact of the depletion of fish stocks on small cetaceans, (2) encourage fishing effort reductions and (3) review new information on these depletions to make recommendations. Resource depletion in the Agreement Area requires improved monitoring, collation of data, and consideration of appropriate mitigation measures, while also taking into account similar work in other areas.

It is of particular interest to ASCOBANS to understand the extent of prey depletions, any related ongoing work, monitoring and mitigation measures in the Agreement Area. Countries are requested to provide relevant information.

2.1. Based on the latest stock assessments, are there any notable depletions of fish species which would be a concern for small cetaceans?

Yes

2.2. Where are these depletions in national water occurring?

Please choose the sub-Regions from Annex A as defined by OSPAR & HELCOM.

Hold 'Ctrl' to select multiple options.

OSPAR and HELCOM sub-regions:

Please choose the sub-Areas from Annex A as defined by ICES.

Hold 'Ctrl' to select multiple options.

27.3 - Skagerrak, Kattegat, Sound, Belt and Baltic Seas

2.3. What measures are being taken to manage pressures on depleted fish stocks, including relevant regulations/guidelines (current/planned/year of implementation)?

Per measure, please provide timeframe information and relevant driver.

>>> Ban on fishing cod in some areas

Mitigation measures on fishing eel (maybe not so relevant in this report)

Several research projects on cod, herring and other species, also in an ecosystembased approach.

2.4. Is there any evidence within your country's national waters that resource depletion may be impacting small cetaceans (e.g. evidence of starvation)?

No

2.5. Are there any national efforts to evaluate cetacean body condition at sea (e.g. surveys)?

Yes

Please provide details:

>>> The national monitoring program of the health and disease for marine mammals covers also body condition

2.6. Relevant new research/work/collaboration on resource depletion in your country.

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

>>> SAMBAH II LIFE application was submitted February 2021, and rejected. With regards to cetacean-prey interaction, the planned aims of the project were: to map prey availability (in terms of both quality and quantity) in two key habitats in Sweden and Poland for the Baltic Proper population, and to extrapolate prey availability to the wider Baltic Proper to look at its impact on habitat quality. Sweden has five partners (SwAM, NRM, SLU-Aqua, SLU-FRM, CCB) in the consortium. Additional work to locate alternative sources of funding for the project is ongoing.

2.7. Is the perceived level of pressure from resource depletion in your country increasing, decreasing, staying the same or unknown?

Unknown

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

9. Marine Debris (ingestion and entanglement)

AIM: to illustrate progress, during the reporting period, on understanding, monitoring and mitigating impacts of marine debris on small cetaceans.

Relevant Resolutions: 8.8, 8.3, 6.1

Marine debris, such as macroplastics and discarded fishing gear, poses a threat to small cetaceans due to the potential for these materials to be ingested or to cause entanglement. Commercial fishing operations, recreational fishing and cargo shipping are notable sources of this material, of which the majority is plastic and ghost nets. However, it is assumed that most of the marine litter worldwide comes from land, although this differs per region. Even small amounts of macroplastics that have been ingested may present serious effects on small cetaceans, such as detrimental influence on the gastrointestinal tract or leaching pollutants into the body, potentially leading to mortality or reduced body condition. Entanglement is well-established as a threat to small cetaceans as plastic debris continues to accumulate in aquatic environments, and may cause physical injuries, reduced survival or drowning.

To better understand the impact of marine debris on small cetaceans and measures in place to mitigate these effects, countries are requested to provide relevant information.

Note: Includes macroplastics and discarded fishing gear. Microplastics are covered under Section C 10 Pollution and Hazardous Substances.

9.1. Does your country have monitoring in place to assess levels of marine debris?

Yes. Please provide information below.

Include parameters provided through monitoring (e.g. type of litter (size, shape, material), amount, impacts on species, geographical location, etc.).

>>> <https://www.havochvatten.se/overvakning-och-uppfoljning/miljoovervakning/miljoovervakning-i-kust-och-hav/marint-skrap.html>

9.3. What species of small cetaceans were found to have been impacted by marine debris? Please provide details in the table.

Please provide details in **this table** - download and then attach it using the blue 'link' button below.

>>> None

9.4. Are there any mitigation measures in place?

Mitigation measures might include changes in gear to prevent loss, entanglement response, adoption of measures to reduce land-based/boat-based sources of marine debris, etc.

Yes. Please provide information below.

Per measure, please provide: date of implementation, Region (Annex A), identify whether the measure has been effective and provide comments, and other relevant information.

>>> See links below (9.6)

9.6. Relevant new research/work/collaboration on marine debris 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 (e.g. link to OSPAR reports).

>>> In english:

<https://www.havochvatten.se/en/facts-and-leisure/environmental-impact/producer-responsibility-for-fishing-gear.html>

https://www.havsmiljoinstitutet.se/digitalAssets/1641/1641336_sime-2017-4-marine-plastic-litter.pdf

<https://www.havochvatten.se/download/18.554f729615bf4ab8719c9af9/1591599985071/compilation-marine-pollution.pdf>

In Swedish:

Global Underwater Explorers Sweden (GUE Sweden) have mapped the presence of ghost nets using hydroacoustics and divers in some Baltic Counties, funded by the County Administrative Boards. GUE Sweden have also a proposal for mapping ghost nets within the Natura 2000 site Hoburgs bank och Midsjöbankarna (SE0330308). NRM, CCB and WWF Sweden has supported GUE Sweden in the planning of the project and funding for further work may be available from WWF. The most recent report on the activities and aims of GUE Sweden is available here:

GUE Sweden. 2021. Operation spöknät. Ett initiativ startat av GUE Sweden för att kartlägga spöknät i Östersjön och verka för ett renare hav. April 2021. 10 p. Available from:

https://www.guesweden.se/images/Dokument/Operation_Spknt_GUE_Sweden_April_2021.pdf (In Swedish)

Webpage where to report lost fishing gear (GhostGuard)

<https://www.havochvatten.se/e-tjanster-och-blanketter/a-o/ghostguard.html>

Monitoring

<https://www.havochvatten.se/overvakning-och-uppfoljning/miljoovervakning/miljoovervakning-i-kust-och-hav/marint-skrap.html>

III. Surveys and Research

A. Biological Information (per species)

1. Abundance Estimates

AIM: to provide new information on abundance and life history parameters of small cetaceans during the reporting period.

Relevant Resolutions: 8.5 (Rev.MOP9), 8.4 (Rev.MOP9), 8.3, 7.1, 6.1, 5.7, 5.5, 4.7, 3.5, 3.3

Abundance estimates and information on life history are of critical importance for the determination of broader species attributes such as populations levels, health and overall status. These parameters can contribute towards determination of GES and provide a reference for mortality events. Abundance and life history parameters are typically assessed from monitoring programmes. Fluctuations in these parameters can provide insight into trends in populations. Information on abundance and life history parameters can inform the need for mitigation measures, and regional assessment of these parameters allows for a more spatially targeted and concentrated response to support national assessments.

In the ASCOBANS Area, small cetacean abundance and life history should be monitored in response to a number of ASCOBANS resolutions. Continued monitoring of these parameters is essential to understanding current status and trends.

1.1. Did your country conduct national dedicated surveys on abundance and distribution during the reporting period?

If you select 'Yes', please provide details in **this table** - download and then attach it using the blue 'link' button below. Attach maps separately, clearly marking which survey they apply to.

Note: Information relevant to SCANS-III is to be provided in Questions 1.2.

No

1.2. Other relevant new research/work/collaboration on abundance estimates in regard to small cetaceans in your country during the reporting period.

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

>>> Publications:

Unger B., Nachtsheim D., Ramírez Martínez N., Siebert U., Sveegard S., Kyhn L., Balle J.D., Teilmann J., Carlström J., Owen K., Gilles A. (2021) MiniSCANS-II: Aerial survey for harbour porpoises in the western Baltic Sea, Belt Sea, the Sound and Kattegat in 2020. Joint survey by Denmark, Germany, Sweden. Final report to the Danish Environmental Protection Agency, German Federal Agency for Nature Conservation, and the Swedish Agency for Marine and Water Management. 28 pp.

Projects:

SAMBAH II LIFE application was submitted February 2021, and rejected. With regards to abundance and distribution, the planned aims of the project were: to estimate the current abundance of the Baltic Proper harbour porpoise population, produce monthly density maps of harbour porpoises within the survey area, and assess changes in abundance and distribution since the previous SAMBAH project. Sweden has five partners (SwAM, NRM, SLU-Aqua, SLU-FRM, CCB) in the consortium. Additional work to locate alternative sources of funding for the project is ongoing. SCANS IV- preparation work (meetings/emails) and financing is ready for the survey of the abundance and distribution of the North Sea and Belt Sea populations to be completed in July 2022.

1.3. Is the abundance of species in your country increasing, decreasing, staying the same, or unknown?

Unknown

Please provide the nature of the evidence and describe per species (Annex B) where applicable:

>>> The Baltic Proper population of harbour porpoises has only been surveyed once, as a part of the SAMBAH project in 2011-2013. Since then no new abundance estimate has been obtained (required international collaboration by 7-9 countries), so the trend in abundance of this critically endangered population is unknown. The most recent abundance estimate of the Belt Sea population of harbour porpoises (from MiniSCANS II) was the lowest point estimate to date for the population, however, trend analyses revealed no statistically significant decline. The North Sea population and the Belt Sea population are both due to have an updated abundance estimate completed in 2022 as a part of SCANS IV.

B. Monitoring Programmes

3. Overview of Current Monitoring and Survey Schemes

AIM: to provide information on the progress of monitoring programmes, relevant methodologies and aims thereof, and status of small cetaceans during the reporting period.

Relevant Resolutions: 8.11 (Rev.MOP9), 8.9, 8.8, 8.5 (Rev.MOP9), 8.4 (Rev.MOP9), 8.3, 7.3, 7.1, 6.1, 5.7
Monitoring programmes provide important data on biological and environmental attributes, such as population status, abundance and spatial-temporal distribution. They create opportunities for new research and development, including potential improvements to methodology for monitoring in terms of accuracy, practicality and cost efficiency.

In the ASCOBANS Area, application of coherent monitoring programmes focused on small cetaceans, which collect and provide objective, robust and comparable data, is a key component in understanding and improving the conservation status of small cetaceans through appropriate management. Parties have agreed to design, implement and support relevant monitoring programmes through a number of resolutions. Such efforts are also supported by legislation from a number of bodies which identify monitoring as a requirement in management systems. Additionally, Parties have been encouraged to coordinate their monitoring programmes, which promotes international cooperation and synergies. Parties have also been encouraged to review such monitoring programmes and propose improvements for the betterment of conservation efforts.

It is the interest of ASCOBANS to understand the current monitoring programmes utilised, their outputs, and future activities in the Agreement Area. Countries are requested to provide information relevant to their activities as well as potential improvements to such programmes and efforts.

3.1. Did your country have national monitoring programmes that enabled assessment of the Conservation Status of small cetaceans in your waters (i.e. provides abundance estimates and/or life history parameters and information on pressures) during the reporting period?

If you select 'Yes', please provide details in **this table** - download and then attach it using the blue 'link' button below.

Yes. Please provide details in the table.

3.2. Please provide the relevant information regarding aerial surveying activities.

Provide the number of surveys, area covered, relevant species, and timeframe of the survey.

>>> NA

3.3. Please provide the relevant information regarding Passive Acoustic Monitoring (PAM).

Provide the location of moored instruments, timeframe of the survey, the relevant species, and the make and model of instruments used.

>>> Passive acoustic monitoring is completed as a part of both national and regional monitoring programmes for harbour porpoises. In the Baltic Sea, national monitoring is completed at 10 stations (see map) that have been continuously monitored since 2017. National monitoring is also completed at 14 stations (see map) in the Kattegat that have been monitored continuously since 2019. All stations are monitored with CPODs. A CPOD is also deployed at each national noise monitoring station (n = 2, one in the Baltic and one in the Skagerrak).

The regional monitoring program currently exists of 7-12 stations in Blekinge (southwest Sweden, carried out by the County Administrative Board of Blekinge), and four stations around the island of Öland (carried out by the County Administrative Board of Kalmar). There are plans to extend the regional monitoring program, particularly by County Administrative Boards on the coast of the Baltic Proper. Devices have been purchased, and station locations planned, however, permission to deploy these devices is currently lacking from the Swedish military.

You have attached the following documents to this answer.

[monitoring-hp-report.png](#) - swe-national-monitoring-hp-report-2021

3.4. Are any of these programmes carried out in collaboration with other countries?

No

3.5. Please provide details on any planned activities relevant to monitoring programmes.

Provide web links if available.

>>> It is planned to now also deploy a CPOD at the national noise monitoring station off Sundsvall, in Bothnian Sea, in order to monitor for porpoises in a historic section of their distributional range.

3.6. Relevant outputs/findings from monitoring programmes to note.

Per species, please identify the relevant outputs.

Provide web links if available.

>>> Owen K, Sköld M, Carlström J (2021) An increase in detection rates of the critically endangered Baltic Proper harbor porpoise in Swedish waters in recent years. Conservation Science and Practice 3(8): e 468.

<https://doi.org/10.1111/csp2.468>.

IV. Use of Strandings Records

A. Stranding Network and Strandings

AIM: to provide information on stranding events and demonstrate progress of stranding networks in understanding, monitoring and mitigating strandings of small cetaceans.

Relevant Resolutions: **8.10 (Rev.MOP9)**, 8.7, 8.4 (Rev.MOP9), 8.3, 7.4, 7.3, 7.1, 6.1, 5.7

Stranding of cetaceans is an ever-present occurrence and analysis through necropsy and sampling can provide indications of reason for injury and death. Stranding numbers also provide information on population status, abundance and distribution. Effective response to strandings contributes to the maintenance of favourable conservation status of small cetaceans and also has implications for animal welfare. Comprehensive stranding networks are a critical asset in managing small cetacean strandings and have resulted in large numbers of animals rescued and returned to sea. These networks also have the capacity to guide the public on animal welfare, human health and safety considerations during stranding events.

In the effort to mitigate the anthropogenic causes of these occurrences, Parties have agreed to measures through a number of resolutions. Continued monitoring of stranding causation and further developing guidance for best practices in stranding response and necropsies was identified by Parties as important tasks to pursue, as was setting up stranding response networks. This information is to align with appropriate sampling practices and countries should ensure that the data is available for researchers. Additionally, development and support of international strandings databases and regular reporting is conducted through relevant research institutes and stranding schemes. ASCOBANS Secretariat encourages the ongoing funding and support of engagement with organizations for further development of guidelines, best practices and maintaining dataflow for capacity building across stranding networks.

To better understand the extent to which stranding events occur and how these events are managed, it is the interest of ASCOBANS for countries to provide the relevant information on these occurrences within the Agreement Area, procedures undertaken in response to stranding events, necropsies and information on stranding networks.

1.1. Is there a national stranding network in place?

Yes

1.2. Does the national stranding network cover the whole, or part of the reporting country's coastline?

Whole coastline

1.3. Are necropsies carried out to determine cause of death?

Yes

1.4. Is there a database of strandings?

No. Go to Question 1.6.

1.5. Is there data available online or downloadable on request?

No

1.6. Provide details for any new institution(s) responsible for a stranding database, responding to live-strandings, collection of carcasses, and for conducting necropsies.

Please identify the new responsible institution(s) and provide their: responsibility (responding to live-strandings, collection of carcasses, necropsies, stranding database), phone number, email, and website.

>>> Aleksija Neimane aleksija.neimane@sva.se Phone +46 (0)18-674655, National Veterinary Institute (SVA, <https://www.sva.se/en>), responsible for national monitoring programme on health and diseases for harbour porpoise and other cetaceans together with Anna Roos, anna.roos@nrm.se, Swedish Museum of Natural History (NRM,

<https://www.nrm.se/en/16.html>)

Strandings and live animals may be reported to nrm.se, sva.se and/or valar.se.

(There is also artdatabanken.se and rappen.se)

You have attached the following documents to this answer.

[folder-marina-daggdjur-2021.pdf](#) - folder marine mammals sva in swedish

1.7. Were cases photographed, measured or sampled even if not collected for necropsy during

the reporting period?

Yes

Please provide details:

>>> occasionally

1.8. Were there recorded stranding events in your country during the reporting period?

If you select 'Yes', please provide details in **this table** - download and then attach it using the blue 'link' button below. Provide details relevant for recorded stranding events during the reporting period.

Yes

1.9. Were any necropsies conducted during the reporting period?

Yes. Provide information below.

Per necropsy, please provide: the protocol used for dissection/methodologies/collection of samples etc., number of carcasses necropsied, what causes of death were identified (add percentage if available), and any additional comments.

>>> 42 harbour porpoises (36 whole animals and 6 organ samples)

1 northern bottlenose whale (Hyperoodon ampullatus)

1 humpback whale (Megaptera novaeangliae)

1.10. Other relevant new research/work/collaboration on strandings and stranding networks 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.

>>> Neimanis et al., Causes of Death and Pathological Findings in Stranded

Harbour Porpoises (Phocoena phocoena) from Swedish Waters

You have attached the following documents to this answer.

[ref-Neimanis_et_al_2022_causes_of_death_and_pathology_in_stranded_harbour_porpoises_\(003\).pdf](#) - Neimanis et. al, Causes of Death and Pathological Findings in Stranded Harbour Porpoises from Swedish Waters 2006 - 2020

