



Baltic Marine Environment Protection Commission

13th Meeting of HELCOM Expert Group on Marine Mammals

EG MAMA 13-2019

Helsinki, Finland, 24-26 September 2019

Document title	Report of the “HELCOM Marine Mammal Health Group” Activities in 2019
Code	2-7
Category	INF
Agenda Item	2 – Information by the Chair, Secretariat and Contracting Parties
Submission date	20.9.2019
Submitted by	Health Team
Reference	

Background

This document contains the protocol of the Meeting of the “HELCOM Marine Mammal Health Group”, which took place 14- 15 August 2019 in Büsum, Germany.

Action requested

The Meeting is invited to take note of this information.

Protocol of the Meeting of the “HELCOM Marine Mammal Health Group” 14. + 15.08.2019 in Büsum, Germany at the Institute for Terrestrial and Aquatic Wildlife Research (ITAW) University of Veterinary Medicine Hannover (TiHo)

Participants: Ursula Siebert (University of Veterinary Medicine Hannover, Germany), Michael Dähne (DMM, Germany), Linda Westphal (DMM, Germany), Iwona Pawliczka (Prof. Krzysztof Skóra Hel Marine Station, University of Gdańsk, Poland), Wojciech Górski (Stacja Morska im. Profesora Krzysztofa Skóry, Instytutu Oceanografii Uniwersytetu Gdańskiego, Poland), Paula Rosacinska (Prof. Krzysztof Skóra Hel Marine Station, University of Gdańsk, Poland), Sara Persson (Swedish Museum of Natural History, Sweden), Stephanie Groß (TiHo, Germany), Vaida Survilienė (Lithuanian Fund for Nature, Lithuania), Line Anker Kyhn (Aarhus University, Denmark), Kristina Lehnert (TiHo, Germany). Finland, Russia and Latvia were excused.

14.08.2019

Welcome of participants, introduction round

After the welcome of Ursula Siebert the Agenda was adopted and the participants joined in a short introduction round. Then it was suggested that all countries give a short update about the development in each country since the last meeting.

Short report from each participant/institution/country

Poland:

- Iwona reports increase of live and dead stranded seals, mostly grey seal pups
- 251 dead animals observations / animals could be recorded several times
- 149 live animals, majority grey seal pups / >50 observations on one animal
- 158 dead grey seals / 130 live grey seals → majority pups
- Increase of harbour porpoise and seal strandings – probably weather related, majority on western part of the coast and decomposed
- H5N8 influenza virus in Baltic Grey Seals without pathological changes

Sweden

- Sara reports increase of hunting quota, almost doubled to ~ 1000 grey seals
- Also hunting quota doubled for ringed seals → because of damage to fishing gear by both species
- 100 grey seals per year investigated – 50 from the north 50 from the south
- In 2019 all 50 samples were collected from hunters in the south and submitted already in the beginning of August – therefore no survey and data collection for evaluation indicators throughout the year will possible for this year. There may be females that will be difficult to assess pregnancy in in this material.
- Sweden is collecting additional harbour seal females from the Swedish west coast as the data has been very sparse but suggesting a quite low pregnancy rate. Age determination is delayed due to problems in the lab, so the results are not ready yet. Stranding network: not many animals, around 10 per year
- By-caught ~30 per year. In 2018: 15 animals. We are not sure why the number of bycaught seals that are sent in has decreased.

Denmark

- Line reported continuous difficulties in establishing a stranding network, no financial support, but improved public awareness this summer.

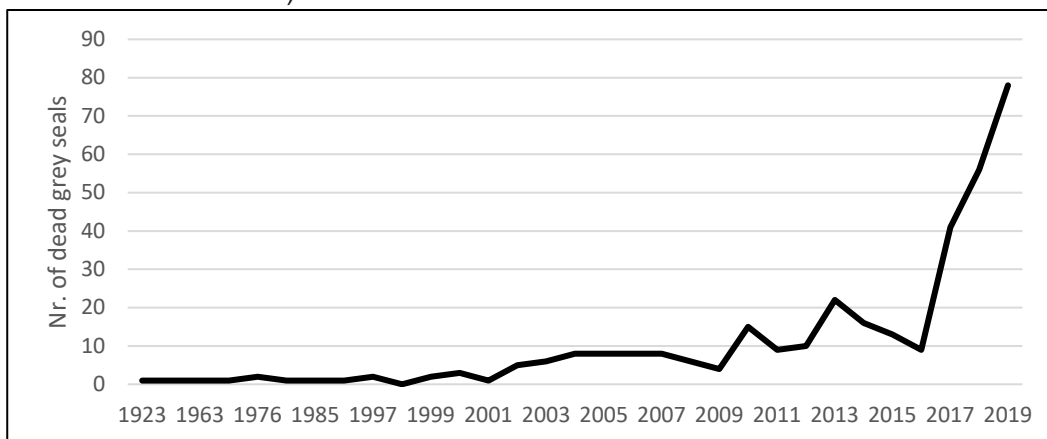
- Harbour seal population in Dk waters is still slightly increasing, detection of a lot of younger animals this year, but likely due to increased awareness of where to report them.
- Funding available for health investigations of 25 harbour porpoises, 25 harbour seals and 5 grey seals from the North and Baltic Sea coasts from the Contingency Plan; → never reached.
- The veterinarian in charge does focus on the health aspects but are not in the position to collect a lot of life history data (e.g. reproduction) → Basic information and investigations crucial.
- No facilities for freezing along the coastlines, no stranding network, no systematic reporting of stranded animals. No collection of bycaught animals.

Project idea: citizen science to build stranding network to collect animals for necropsies: Several previous proposals were not funded. New proposal submitted August this year. Proposal prepared with the National History Museum, The National Maritime Museum, Fjord & Belt, University of Southern Denmark and Aarhus University.

- Currently, fishermen are not allowed to land by-caught animals due to food safety.

Lithuania

- Vaida reports no stranding network, animals are collected and utilized, however no necropsies ongoing, no further details about dead individuals. Due to lack of funding and lead
- Maybe future funding - Dissection hall in newly built Baltic animal rehab centre by 2021 is planned
- Generally, the number of stranded animals increases (79 dead grey seals in 2019 so far, 56 in 2018)



- 16 pups in rehab, 5 died – 11 still alive: Lithuania Sea Museum
 - o Need support about which tests for the health checks for pups prior to release into the wild need to be conducted.
 - o Unified HELCOM autopsy protocol necessary.
 - o A simplified guide for data collection from dead individuals would be helpful.
- Collaboration with fishermen – they do not know what to do with by-caught animals – fear to bring an animal into the harbour. Contact with Schleswig-Holstein government about possible strategies
- Pontoon traps are to be tested by 2020

Mecklenburg-Vorpommern

- Michael Dähne reports about the HELCOM/BALTFISH WS in Gothenburg and Copenhagen protocol
 - o Both workshops targeted easing fisheries interactions, process will continue throughout the next years

- 2018: maximum numbers registered for all species (156 all together), causes are unknown but could be weather related to some degree
 - o 53 grey seals (predominantly found in May/June)
 - o 16 harbour seals (no seasonal pattern)
 - o 81 porpoises (mostly found between July and November)
 - o 6 unidentified seals
 - o About ¾ of all animals found are recovered and dissected.
 - o Even animals in advanced decomposition
- 2017: strandings event with 23 grey seals found dead within 2 km coastline in three months
 - o Determined cause of death: presumed drowning/bycatch based on dissections at DMM, presumably in large fish traps with too large entrances (animals found dead were 2 m or longer suggesting that those seals were entering a fish trap but could not leave again).
 - o Legal charge was filed and led to investigations. Two suspected fishermen were found and therefore it could not be determined who did commence the crime
 - o Legal authorities contacted local fishing authority (LALLF) who worked out a plan to prevent
- A vet with additional education in marine mammal pathology is doing post mortem investigations at DMM, for decomposed animals it is done by a team of trained biologists under supervision of M. Dähne
- Stomach content analyses for plastics and diet investigations is being initiated and shows low percentages of plastic content found in stomach and intestines, seals are more affected than porpoises
- Close cooperation with ITAW, similar protocols in some analyses
 - o Protocol by DMM now contains fields for
 - Reproduction (no of corpora albicans and luteum, follicles and scars), pregnancy and fetus information)
 - o Fields are added for all organs
 - o Sampling is done exhaustive, but has to be reduced to keep cooling capacities at a reasonable limit.
- Bycatch indicator for marine mammals should be agreed upon in health team as well.

ITAW

- In 2018 a total of 134 dead harbour porpoises, 19 harbour seals, 6 grey seals and two ringed seals were registered on the Baltic coast of Schleswig-Holstein.
- Since April 2017 about 1,600 PALs were distributed to the fishermen in Schleswig-Holstein. A monitoring program on the use of PALs and further investigation on the function of PALs is still lacking. The number of stranded harbour porpoises has not decreased in 2018
- Recent publication on harbour porpoise population structure of harbour porpoise from stranded individuals
 - o Average age at death of females Baltic Sea is 3.67 and the North Sea with 5.7 years. Maturity for females is reached with 2-5 years.
- Antimicrobial resistant E.coli isolated from marine animals species → very high in marine mammals → hygiene during dissections very important
- Microplastics investigations in PhD project – methods include sampling closed piece of intestines with faeces → store in glass jar (-20°C) → special laboratory

Latvia

Ursula reports on behalf of Valdis

- Dolphin with severe skin lesions observed on the coastline of Lithuania - photos
- Aetiology of the lesions according to other observations infectious agents (bacteria, fungus, virus), immune suppression could contribute to the lesions.
- nobody is doing studies (necropsies) on seal health issues in Latvia

Lunch (provided by ITAW)

Presentations from different workshops and meetings

Global Marine Mammal Health Indicator, 05.---07.06.19, Stockholm, Sweden

Ursula reports on the workshop “Development of marine mammal health index” held in Stockholm topics included were

- Connecting marine mammal health and ocean health
- Scale up from data collected from individuals to populations and ecosystems
- Role of marine mammals in the ecosystem processes
- Marine mammals and climate change
- Marine mammals and fisheries
- Develop novel approaches to monitoring marine mammal health and abundance, social networks, satellites, drones etc.
- Equivalent of DALYS for marine mammals
- Idea: making two publications
 - o “Developing a Marine Mammal Health Index” and “Ocean Health Index”
 - o A new marine mammal health agenda: What are the important knowledge gaps, major obstacles, theoretical reframing
 - Parasites as health indicators

ASCOBANS/ACCOBAMS Stranding Protocol Meeting 24.25.06.19, Legnaro, Italy

Ursula reports that aims were to:

- Update the necropsy protocol from the ECS workshop in 1991
 - o Recommendations for qualifications of investigators, necropsy techniques and sampling protocols
 - o Currently: under the last review process, final version ready early September
 - Presentation at the ASCOBANS meeting in Stralsund in September and at the ACCOBAMS meeting in Turkey in October

Agreed on that “Best practice on cetacean post-mortem investigations” has potential to be modified for pinnipeds so that protocols are available for all marine mammals species in the HELCOM area. Final decision after the protocol is available to everybody.

OSPAR Development, 24.---27.06.19, Paris, France

Ursula reports on new developments from the OSPAR region on behalf of Anita.

HELCOM fish, 26./27.06.19, Copenhagen, Denmark

Kristina reports on workshop “HELCOM seal-fisheries interactions” June 2019, Copenhagen

- Seal-fisheries conflicts: depredation, parasites and entanglement
- Seal counting and harmonising different methods
- Parasites: little is known about seal abundance and parasites in fish → which environmental factors ?
- Food web dynamics
- Discussion about
 - o Compiling information for fishermen in easy language, maybe several translations, on parasites, life cycles → fisheries newspapers (leaflets, postcards etc.)
 - o Full parasitological investigations of cod and in parallel in seals needed, what are the other infections and diseases in fish that contribute to the vulnerability to parasites?

- Important topic between fisheries and marine mammal experts – international approach would be important

It is agreed that Vaida drafts a short text with information about parasites in fish and seals for the public.

Status of Indicator development, protocols

The group discussed the questions raised in the Document 1: Request for further input into the 'Future work on HELCOM indicators' process - from HELCOM Experts and Working Groups for the preparation of the second indicator workshop of HELCOM

- Questionnaire (HELCOM Experts) needs to be answered until 2nd September 2019
- Joint discussion about questions raised
 - o a drafts with answers is prepared and will be further developed by Sara Persson for circulation among the group to be finalised in due time

Regarding the status of indicator development and protocols of HELCOM Health Group, it was discussed

- Sara reported on the progress on the harmonisation monitoring guidelines for reproduction. This document has the priority to be finalized before the nutritional status document.
- Health indicator development looking at target organs, intestine and lung in all different marine mammal species of the HELCOM area. Target organs have been identified for harbour porpoises, harbour and grey seals. Pathological investigations of ringed seals are still insufficient.
- As blubber thickness is not always measured the same way in live and dead animals, some sort of standardization is required. Sara will revisit old data on measurements of blubber thickness on different parts of the body, to see if it needs further analysis. Data from all areas will should be combined into the indicator. It will be proposed at the EGMAMA meeting to change the name into "Blubber thickness", as "nutritional" may be misinterpreted.

How to identify a by-catch?

- o Detailed necropsy, histology by experienced pathologists and investigations of infectious diseases need to be conducted preferably including brain and ears
- o list of indications, expert veterinary pathologists is needed
- o What type of diagnosis is needed to solid in discussions with fisheries, court proof level of diagnoses

Closing discussions at 18.00h

Joint dinner

15.08.19

Safety Instructions (preparation for dissections)

Necropsies of a harbour porpoises, harbour, grey and ringed seals with all members of HELCOM Health Group, including Bone density measurements and parasitological investigations.

Lunch (provided by ITAW)

Next working obligations for the HELCOM Health Group

Next working obligations for the HELCOM Health Group are discussed, as well as possible cooperations with OSPAR, and ideas for future international project cooperations developed.

For HELCOM MAMA September 2019, Helsinki a **proposal draft about the new health indicator** will be prepared by ITAW, discussion about

- Approach of health <-> linkage to the environment / status of the population

- Biodiversity from individual to population level → combination of many factors
- Not searching for one factor like shipping, noise, marine litter (MSRL)
- Target organs
 - Lung → much is known for harbour seals and harbour porpoise
 - Intestines → grey seals – parasites
 - but still less is known from ringed seals
- Impact on a species by the combination of all environmental and anthropogenic factors is very difficult to assess

Update of monitoring guidelines for reproductive and nutritional status will be prepared by Sara Persson

- A new draft for the monitoring guidelines of reproductive status had been prepared and circulated between the leads SE and GE beforehand and is now forwarded to the group for further input, this draft is to be advanced at first during proposed meeting of MAMA HEALTH group at Hel, Poland, in early 2020.
- No monitoring guidelines for nutritional status seem to exist, the meeting agrees that Sara Persson will commence with drafting a new document
- More objective guidelines and criteria to categorize organs → Monitoring guidelines must include clear steps towards assessing the indicator, therefore it is necessary to provide a protocol for dissections of seals and assessment of organs like is worked on and will be circulated by Ursula Siebert for Cetaceans under ECS/ASCOBANS/ACCOBAMS premises.
- Next steps: draft discretionary text and circle → review process
 - Understandable for all the different stakeholders
 - Descriptions and pictures
 - How to interpret the data
- Denmark has a special obligation to collect data from the Southwestern Baltic population of harbour seals and from the Belt Sea harbour Porpoise population as Denmark has the main part of these populations. Baltic data on harbour seals is mainly based on Danish data and therefore Danish data is crucial and the Danish stranding network, necropsies and data collection need to be approved.

It was discussed and decided that equivalent to EG MAMA the working group would also change its name to “HELCOM Marine Mammal Health Group” and this will be reported to the EGMAMA meeting in Helsinki.

It is agreed that a short protocol of the meeting will be compiled → short report of countries of last year e.g. including graphs, figures, pictures of data if available

Collaboration with OSPAR

- Similar process on indicator development- exchange would be helpful and positive → more experts and experience – comparable situation on indicators on health and pollutants

“Best practice on cetacean post-mortem investigations” circled by Ursula as soon as finalized.

Future international Research Projects

- BaltHealth – ends in March 2020, results will be made available
- Common international data base for health and life history data
- How to classify the health status in live and dead animals?

Invitation to the next meeting from our Polish colleagues to be held in Hel, Poland, in January 2020 was proposed.