# MANAGEMENT COMMITTEE FOR CETACEANS

6 March 2018, Tromsø, Norway

**DRAFT Report**

1. **Chair's opening remarks**

Nette Levermann (GR) welcomed the delegates, observers, and invited participants to the meeting of the Management Committee for Cetaceans.

1. **Adoption of agenda**

The agenda was adopted without revisions.

Levermann drew the attention of the participants (Appendix X) to the documents for this meeting, in particular documents NAMMCO/26/MC/05 "Proposals for Conservation and Management,” NAMMCO/26/MC/06 “Summary of Requests by NAMMCO Council to the Scientific Committee,” and NAMMCO/26/08 “Report of the 24th Scientific Committee.”

1. **Nass**

**Review of requests by Council for advice from the Scientific Committee**

Levermann noted that there are various requests that are species-specific, and those will be discussed under each species.

**Update from Scientific Committee (Bjarni)**

Bjarni Mikkelsen (FO), the Vice-Chair of the SC, updated the MCC on the progress of the NASS2015 project, and plans for the future.

*NASS 2015*

An Abundance Estimates WG is scheduled for 22-24 May 2018. The SC recommended that the remaining NASS funds (from Norwegian Ministry of Foreign Affairs grant) will be used for completing all the 2007 and 2015/16 analyses as well as conducting a joint analysis of the abundance of common minke whales in Central North Atlantic (NCA). These estimates will be presented to the May Abundance Estimate WG and generate publications to be included in the next NASS volume.

*Future Surveys*

The next NASS survey should be in 2022-2023. The SC strongly recommends that attempt be made to conduct again a trans-Atlantic coordinated survey and charge the Secretariat to explore what are the present plans and how much flexibility they encompass.

*SMM Workshop*

Mikkelsen updated the MCC on the results of the workshop organised by NAMMCO and held 28 and 29 October 2017 in conjunction with the recent SMM conference, “Cetacean distribution and abundance in the North Atlantic”. There were two main goals of the Workshop, with the second being the most relevant to this agenda item.

The workshop participants considered that a North Atlantic-wide modelling effort could be of value for a number of reasons. It could help in understanding the large-scale distribution of several species, and why those distributions change over time. It could also be useful in predicting future distribution based on predicted changes in the ocean environment. Habitat modelling may identify areas that are likely to have large numbers of animals but which have not been sampled adequately by surveys.

***Comments and Discussion by the MCC***

Regarding the recommendations of the SC on the future NASS, Greenland asked if a budget has been discussed. Norway commented that there have been issues in the past regarding budgeting for the previous NASS and that it would be optimal to avoid such an issue with the next NASS. Iceland further commented that the budget cycles are now 5 years, and the next budget proposal for 2019-2023 have already been submitted to the government. The MCC stressed that the SC should be aware of this budget situation.

The Secretariat informed the MCC that it is quite early in the planning process and thus far the SC has not discussed any budget for the next NASS. Prewitt noted that the SC needs guidance on what year they should aim for, taking into account the budget situation.

The MCC recommends that the SC continue with the planning process with developing a proposed budget as the first priority, and that the timing of the survey will be discussed by NAMMCO once these budget estimates are presented.

The MCC noted the plans of the SC/AEWG to have these remaining abundance estimates presented to the AEWG meeting.

MCC **endorsed**

* The previous recommendation (SC/23) that surveys should be repeated more frequently in areas where declines have been observed.
* The recommendation that attempt to get trans-Atlantic coverage for the next NASS. The MCC further noted that they would like to include Russia in this discussion.

The MCC awaits a proposed budget for the next NASS before it can endorse the recommendation for the timing of the next NASS.

1. **Conservation and Management measures for whale stocks**
* Review of requests by Council for advice from the Scientific Committee
* Report from the Scientific Committee
* Proposals for Conservation and Management
* Recommendations for Research
* Updates from Member Countries
	1. **Fin whale**

**Review of requests by Council for advice from the Scientific Committee**

*R-1.7.12 (ongoing): Greenland requests the SC to give information on sustainable yield based on new abundance estimates expected from TNASS2015 for all large baleen whales in West Greenland waters*

**Update from Scientific Committee**

Based on the advice from NAMMCO (endorsed at NAMMCO-25), MFRI gave this advice to the Ministry: *For the period 2018-2025, MFRI advises that annual catch of fin whales should be no more than 161 animals from the East-Greenland/West-Iceland management area (EG/WI) and 48 fin whales from the East-Iceland/Faroes management area (EI/G;* https://www.hafogvatn.is/‌static/extras/‌‌images/Langreydur174.pdf)

**Updates from Member Countries**

Greenland informed the MCC that the quota from IWC is 19 whales, quota from 31 December. 8 were caught in 2017. (I will correct this before adoption)

***Comments and Discussion by the MCC***

The MCC noted the report of the SC.

* 1. **Humpback whales**

**Review of requests by Council for advice from the Scientific Committee**

*R-3.2.4-amended (ongoing): … to provide advice on future catch levels of humpback whales in West Greenland at different probability levels for a non-declining population evaluated over a 5-year period, similar to the procedure for the advice generated for beluga, narwhal and walrus. The advice should include the latest abundance estimate.*

**Update from Scientific Committee**

*Large Whale Assessment WG*

The Large Whale Assessment WG met in January 2017 and the humpback whale section of that report was discussed at the SC-24 meeting. The SC reiterates its recommendation that the SLAs that are developed in the IWC be used for advice for large whales in Greenland.

Abundance: The 2007 abundance was updated with a new analysis that included new diving data – **2,704** (CV=0.34). For the 2015 estimate, a fully corrected abundance estimate of 1,321 (CV=0.44, 95% CI: 578-3,022) whales in 2015 was adopted by the Abundance Estimation WG (SC/23/15). The IWC AWMP meeting in December 2016, however, and reviewed and adopted a fully corrected estimate of **1,008** (CV=0.38, 95% CI: 493-2,062), which is considered to be the best estimate because a very small sample sizes in some strata led to a higher variance in the old estimate.

The SC adopted both of these estimates and noted that an exchange of individuals between East and West Greenland may explain the difference in the estimates between 2007 and 2015 (a humpback whale that was tagged around Nuuk in 2017 moved to East Greenland during the summer).

*Advice from the SC*

The SC **advises** that annual strikes of no more than 25 humpback whales off West Greenland are sustainable from 2019 to 2024.

Future Research

The SC recommends that information be collected on possible movements of individuals between summering areas in the North Atlantic (e.g. satellite tagging, biopsies, photo-ID etc.).

**Further updates from SC**

* During Barents Sea surveys, humpbacks were observed much further north than previous.
* Humpback whales continue to visit northern Norway… tagging results that show similar movement patterns compared to previous tagging studies in Iceland and Norway.
* Iceland – during capelin surveys, in 2015, 7,083 humpbacks and 4,923 fins were estimated to be present on the capelin grounds. Observations during the last 2 years have been similar but insufficient effort was obtained to produce estimates.
* GINR is satellite tagging and collecting biopsies from humpback whales in Nuuk fjord in west Greenland, and also in east Greenland. (with Iceland)
* Regarding photo-ID studies, the SC encourages researchers to work on collaborative efforts, especially between the NAMMCO countries, but also with organisations outside of NAMMCO…photo-ID databases are more valuable for looking at broad-scale movements when they cover large areas of the North Atlantic.

**Updates from Member Countries**

Greenland reported that there was a quota from IWC for 10, in 2017 2 were caught (I will correct these numbers before adoption). Hunting period 1 Jan – 31 December.

***Comments and discussion by the MCC***

Greenland noted that as a matter of principle NAMMCO does not base management objectives on “Needs Statements.” NAMMCO does not recognise the concept of “aboriginal subsistence whaling” and does not categorise the use of resources based on the people using the resources. The advice in NAMMCO is based on science and sustainable use. Therefore, this management advice does not follow the principles of NAMMCO and Greenland considers this request as not answered. Greenland would like to reiterate request R-3.2.4 from 2016, and further draws the attention of the SC back to the comments by the MCs made in 2016, both at the joint meeting of the MCs (point 5.4) and at the meeting of the MCC (point 5.2). Furthermore, while this issue has arisen for humpback whales, Greenland noted that it applies to advice given for all large whales.

The Faroe Islands, Norway, and Iceland support this intervention. They stressed that in NAMMCO, the advice should not take into account issues such as needs statements. NAMMCO does not approve this approach and commented that the request R-3.2.4 was quite clear and it was surprising to receive this advice from the SC.

Mikkelsen noted that there are other modelling options aside from the SLA (RMP, Bayesian modelling, etc.) that could be used to answer this request.

The MCC noted the new abundance estimate in West Greenland and the report of the SC. The MCC also **endorsed** the recommendation for research on possible movements of individuals between summering areas in the North Atlantic (e.g. satellite tagging, biopsies, photo-ID etc.).

* 1. **Common minke whales**

**Review of requests by Council for advice from the Scientific Committee**

*R-1.7.12 (ongoing): Greenland requests the SC to give information on sustainable yield based on new abundance estimates expected from TNASS2015 for all large baleen whales in West Greenland waters*

Greenland requested an explanation from the SC on why this request has not been answered and noted that this request is a priority. This request should be dealt with by a LWAWG meeting, and is not on our work plan for the next few years. FAC should discuss this issue at their next meeting in November.

**Update from Scientific Committee**

The SC reviewed the advice given by the LWAWG, which was endorsed by NAMMCO-25. The SC has endorsed the recommendations of the WG for work to be done at the next meeting, which includes testing of a management variant that includes catches in the CM area.

There have been many sightings during the recent survey conducted in the Barents Sea, which suggests a more easterly distribution of common minke whales. Unfortunately, permission for the survey to be extended into the southeastern Barents Sea was not granted by Russia.

Three common minke whales were satellite tagged in summer 2017 in West Greenland. Genetics samples have been/are being collected from the hunts in Norway and Greenland.

**Updates from Member Countries**

Greenland quota based on IWC - X. Catches 2017 – 164 in West Greenland, 12 in east Greenland. 133 4 S&L, (will be corrected before adoption). There were 30 approved whaling boats with harpoon guns and about 400 smaller boats active in whaling in 2017. One infraction was reported, however the issue was dismissed by the police after an investigation.

The Government of Greenland is working on revising the executive order on hunting of large whales, but it is unclear when this will be adopted. The goal of the revision is to change the start of the hunting season so that it takes into account the wish of the hunters to start in mid-March and end 14 December. The current IWC schedule includes a season that is 9 months is total season, however Greenland wishes to adjust this to account for changes in distribution due to climate change. (Greenland please correct if this is wrong)

Norway informed the MCC that the 2017 quota was 999, with a hunting season from 1 April – 15 September. 11 vessels participated, 432 animals caught, 1 S&L.

Iceland informed that 2 vessels were active in 2017, and 17 animals were caught.

***Comments and discussion by the MCC***

The MCC noted the report of the SC and updates from member countries.

* 1. **Beluga**

**Review of requests by Council for advice from the Scientific Committee**

*R-3.4.9 (ongoing): …effects of human disturbance, including noise and shipping activities, on the distribution, behaviour and conservation status of belugas and narwhals, particularly in West Greenland*

*R-3.4.11 (standing): update the assessment of both narwhal and beluga*

*R-3.4.14 (ongoing): The Council requests the SC to examine the data existing on beluga in East Greenland (sightings, strandings, by-catch and catch) and examine how this material can be used in an assessment process and advice on how this data can be improved.*

The SC responded to R-3.4.11 last year (SC/23) that it was not possible because of lack of information, and there is no new information this year (SC/24).

**Update from Scientific Committee**

The NAMMCO-JCNB JWG was held in Copenhagen, Denmark, during 8-11 March 2017. The JWG discussed the life history parameters used in the modelling, stock structure, and hunt removals in Greenland and Canada.

*Recommendations*

The JWG recommended genetic analysis for stock identity of the summer takes in Greenland.

The JWG reiterated its past recommendation that more accurate, and recent, struck and lost data is needed. Struck and lost is likely different for hunting method, season, etc., and the JWG recognizes that it is difficult to collect data on loss rates. However, knowing struck and lost rates is more important in areas where the quotas are small, and these hunts could be prioritised for data collection.

*Advice from the SC*

Assessment and Advice- West Greenland

An updated assessment for West Greenland beluga (a component of the Eastern High Arctic-Baffin Bay stock) with new catch data and the new priors as agreed by the JWG. The model estimated a decline from 21,180 individuals in 1970 to a minimum of 8,470 in 2004, and it projects an increase to an expected 11,610 individuals in 2023 (assuming post 2016 catches of 225). These results are similar to those of the last assessment, and the JWG agreed to re-iterate the previous advice (**320/year during 2015-2020**), which remains valid until 2021.

Reiteration of Past Advice

The SC reiterates the previous advice from 2005 and 2012 about seasonal closures. The following seasonal closures are recommended:

* + - Northern (Uummannaq, Upernavik and Qaanaaq): June through August
		- Central (Disko Bay): June through October
		- Southern (South of Kangaatsiaq): May through October.
		- For the area south of 65°N, it is recommended that no harvesting of beluga be allowed at any time.

The function of these closures is to protect the few belugas that may remain from historical summer aggregations in Greenland, and to allow for the possibility of reestablishment of the aggregations. The SC noted that the quotas given by the Government of Greenland included catches in these areas.

**Updates from Member Countries**

Greenland updated the MCC on the catches, previous 2 year follows quota advice, does not follow seasonal closure advice.

Greenland noted that they will need advice on a new technical quota for the Qaanaaq area in 2019. The scheduled meeting of the NAMMCO-JCNB JWG in 2019 will not meet in time to provide this advice. Greenland commented that they will look into this issue.

Greenland has not implemented the recommended seasonal closures because it sees it as too ambitious to use seasonal closures the rebuild a stock that is not there.

***Comments and discussion by the MCC***

MCC noted the report of the SC and **endorsed** the catch advice for West Greenland. The recommendation for seasonal closures was not endorsed.

* 1. **Narwhal**

**Review of requests by Council for advice from the Scientific Committee**

*R-3.4.9 (ongoing): provide advice on the effects of human disturbance, including noise and shipping activities, on the distribution, behaviour and conservation status of belugas, particularly in West Greenland; narwhal added at NAMMCO 23*

*R-3.4.11 (standing): update the assessment of both narwhal and beluga*

* Updates below

**Update from the SC**

The NAMMCO-JCNB JWG was held in Copenhagen, Denmark, during 8-11 March 2017. The JWG discussed the life history parameters used in the modelling, stock structure, and hunt removals in Greenland and Canada.

Regarding R-3.4.9, the SC commented on habitat concerns for narwhals, including disturbance issues. Studies of the short-term effects of seismic exploration on narwhals in Scoresby Sound were conducted in 2017, after the JWG met, but before the SC. Narwhals are considered particularly susceptible to disturbance and are one of the least studied cetaceans when it comes to effects of anthropogenic activities. This aim of this study was to assess the short-term effects of sound from airgun pulses on narwhals in a closed fjord system in East Greenland to provide an empirical basis for regulation of activities linked to seismic exploration in areas with narwhals. The results will be presented to SC-25 in November 2018.

Further discussions of habitat concerns are presented in the GROM report, and also outlined in the Environmental Issues section of the report of the MCJ.

*Norway*

An aerial survey north of Svalbard from the Russian border westward estimated over 800 narwhals occupying this area (Vacquié-Garcia et al 2017). Many narwhals were observed 200 km deep into marginal ice zone, over deep Arctic Ocean, and there are possibly many narwhals in this area. The narwhals are perhaps foraging in the deep scattering layer. Additionally, passive acoustic monitors located at 79°N detect narwhals year-round. This information suggests that narwhal may be present in a continuum from east Greenland to Franz Josef Land.

*Canada*

A meeting is planned for spring 2018 to discuss stock identity issues around the Eclipse Sound and Admiralty Inlet stocks. Satellite tracking has indicated more movement between these areas than was previously believed. These are shared stocks between Canada and Greenland

*East Greenland*

An aerial survey was conducted in summer 2017 in Scoresby Sound. The full results are not yet available, but the preliminary data indicates the same pattern of distribution and sightings as seen in 2016. A survey of the Northeast Water (NEW) polynya was conducted in April for the polynya area (between 79-82°N), and another survey in August/September covered both coastal and offshore areas (70-82°N). There were only 2 observations of single narwhals during the April survey but large numbers of narwhals were seen in the fjords of northeast Greenland in the August survey. These results are preliminary and will be presented at the next SC meeting.

**Advice from the SC for East Greenland**

The JWG agreed to recognize the hunting areas in East Greenland, Tasiilaq, Kangerlussuaq and Ittoqqortormiit, as three separate management areas. Maintaining these areas as three stocks is a more precautionary approach and hence is more likely to avoid local depletion.

Based on the assessment, the SC agreed that catches should be reduced to less than 10 narwhals in both Ittoqqortormiit and Kangerlussuaq. In addition, the advice for the southern hunting areas applies only to Kangerlussuaq fjord. The JWG recommended that no catches are taken south of 68°N.

This advice should be updated with new abundance estimates from surveys in 2017. The information that we have on abundance indicates that the harvest may be causing a population decline. This decline was confirmed by the model estimates, independent of the aerial survey results, lending more evidence of a real decline.

The SC recognises that these recommendations include a considerable reduction in catch advice for the communities in east Greenland, however, declines in abundance necessitate these reductions.

**Updates from Member Countries**

Catches – quotas and catches in WG and EG – will put in before adoption

***Comments and discussion by the MCC***

The MCC noted the report of the SC.

Greenland requested that the SC provide a description of the criteria that are used for defining the management units before they can support endorse the advice of splitting the management units into 3, the catch advice for Ittoqqortormiit and Kangerlussuaq, and the advice for no catches south of 68°N.

**Global Review of Monodontids**

Prewitt presented an overview of the Global Review of Monodontids meeting that was held in March 2017.

Greenland commented that as the report is very long, it would be valuable to have an executive summary for this meeting. Prewitt agreed to make this summary and forward it to all parties.

* 1. **Sei whales**

**Review of requests by Council for advice from the Scientific Committee**

*R-1.7.12 (ongoing): Greenland requests the SC to give information on sustainable yield based on new abundance estimates expected from TNASS2015 for all large baleen whales in West Greenland waters*

*R-3.5.3 amended (ongoing): assess the status of sei whales in West Greenland waters and the Central North Atlantic and provide minimum estimates of sustainable yield*

**Update from the SC**

Mikkelsen updated the MCC that data from 2007 and 2015 surveys will be explored to assess whether a minimum abundance estimate can be calculated. More information will be discussed at the AEWG meeting in spring 2018.

**Updates from Member Countries**

There were no updates.

***Comments and discussion by the MCC***

The MCC noted the report.

* 1. **Northern bottlenose whales**

**Update from the SC**

Mikkelsen updated the MCC that a new abundance estimate of bottlenose whales from the Faroese component of the 2007 T-NASS survey that was analysed together with data on deep diving species from the SCANS-II and CODA surveys: 19,539 (95% C.I. 9921-38,482; CV 0.36) animals.

In Norway there has been some satellite tagging in the North Atlantic, and the SC awaits the published paper.

**Updates from Member Countries**

No new information was presented.

***Comments and discussion by the MCC***

The MCC noted the report.

* 1. **Killer whales**

**Review of requests by Council for advice from the Scientific Committee**

*R-3.7.2 (ongoing): review the knowledge on the abundance, stock structure, migration and feeding ecology of killer whales in the North Atlantic, and to provide advice on research needs to improve this knowledge. Priority should be given to killer whales in the West Greenland – Eastern Canada area.*

**Update from the SC**

The SC **reiterated** its previous concerns regarding the hunt in east Greenland which is unregulated, and from a species with no abundance estimate from this area and unknown stock identity. There is little information available to be able to provide advice on a sustainable removal level.

The SC discussed that it may be difficult to fully validate the catch statistics, however it may be possible to re-create the previous catch histories based on independent observations, for example by contacting scientists that were in Tasiilaq, etc. when these catches occurred.

The last review of killer whales in the North Atlantic was in 1987.

*Recommendation from SC*

The SC recommends that NAMMCO contract a scientist to prepare a working document for the next SC meeting which reviews all available information and current research activities on abundance, stock structure, and movements of killer whales in the North Atlantic.

**Updates from Member Countries**

The Executive order in Greenland on small cetaceans is still pending.

***Comments and discussion by the MCC***

The MCC noted the report and **endorsed** the recommendation for a review paper covering all available information and current research on killer whales in the North Atlantic.

* 1. **Long-finned pilot whales**

**Review of requests by Council for advice from the Scientific Committee**

*R-1.7.11 (ongoing): develop estimates of abundance and trends as soon as possible*

*R-3.8.6 (ongoing): complete a full assessment of pilot whales in the North Atlantic and provide advice on the sustainability of catches...with particular emphasis on the Faroese area and East and West Greenland. In the short term...provide a general indication of the level of abundance of pilot whales required to sustain an annual catch equivalent to the annual average of the Faroese catch in the years since 1997*

The SC noted that the second part (provide a general indication….) of R-3.8.6 has been completed.

**Update from the SC**

*Faroe Islands*

A new abundance estimate of pilot whales from the NASS 2015 survey has been completed, and that has been integrated in a trend analysis of pilot whales in North Atlantic, including all sightings surveys since 1987 and partly also the CODA/SCANS surveys. The new estimate is on level with the largest estimate from previous surveys, and no trend was detectable in the estimated abundance of the pilot whale stock over the 28-year period. A manuscript has been submitted for the NAMMCO scientific publication series. The estimate will be presented to the Abundance Estimates WG in May.

Samples are being collected to investigate age, diet and life history parameters, and analysis is ongoing. The results will be presented at the planned PWWG.

Satellite tagging is planned, but has not been possible yet. The local sheriff in each of 6 whaling districts oversees the drives and makes the decision on whether a pod should be taken by the hunters or made available for tagging. The SC **recommended** that the satellite tagging be given a higher priority. The SC further suggested that the Ministry could set up a rotation system so any individual community is not affected by “losing” their whales multiple times.

*Greenland*

Increasing catches of pilot whales have been reported since 2009 in southeast Greenland, probably due to a reduction of summer sea ice making the animals more accessible to hunters.

*Pilot Whale Working Group*

The SC **recommended** that a Pilot Whale working group meeting be held in 2019. The TORs for this meeting would be:

• *full assessment of pilot whales in the North Atlantic*

• *provide advice on the sustainability of catches...with particular emphasis on the Faroese area and East and West Greenland.*

**Updates from Member Countries**

The Faroe Islands informed the MCC that in 2017 the catch was 1,203 pilot whales.

***Comments and discussion by the MCC***

The MCC noted the report from SC and **endorsed** the recommendation to give satellite tagging a higher priority in the Faroe Islands.

At NAMMCO-25, the MCC endorsed the recommendation for a PWWG in 2019, however at this meeting it was decided to postpone the PWWG meeting until 2020.

* 1. **White-beaked, white-sided and bottlenose dolphins**

**Review of requests by Council for advice from the Scientific Committee**

*R-3.9.6 (ongoing): assessments of dolphin species*

**Update from the SC**

*Faroe Islands*

After 2006 only a few catches of white-sided dolphins have been taken, but in 2017 catches have been higher again. Not much is known about the abundance of white-sided dolphins in North Atlantic, and therefore there is some concern over taking species where little information is known. The plan is to generate an abundance estimate from the NASS2015 survey.

*Greenland*

Increasing catches of white-beaked dolphins have been reported since 2009 in southeast Greenland, probably due to a reduction of summer sea ice making the animals more accessible to hunters. GINR has collected stomach contents samples to investigate feeding ecology.

**Updates from Member Countries**

No updates were provided to the meeting.

***Comments and discussion by the MCC***

The MCC noted the report of the SC.

* 1. **Harbour porpoise**

**Review of requests by Council for advice from the Scientific Committee**

*R-3.10.1 (ongoing): comprehensive assessment of the species throughout its range*

**Update from the SC**

*Norway*

During 2016 and 2017, 133 by-caught harbour porpoises were collected by IMR for biological sampling. The overall goal of the study is to investigate the role of HP in the coastal ecosystem. The samples so far have been analysed for stomach contents, stable isotopes, fatty acids, and life-history parameters (including age at maturity and reproductive rates). Additional analyses will include genetics to investigate stock identity, pollutants, and health assessments. Finally, a food-web model is being developed for the Vestfjord area close to Lofoten to study the role of HP in this area.

An abundance estimate is now available from the SCANS-III survey which was extended from 62 to include Vestfjorden, an area of large by-catches. The estimate was 25,000 between Stadt and Vestfjorden. Preliminary investigations using this new abundance estimate suggest that by-catches are within PBR.

The sightings of harbour porpoises in the southern parts of the survey area were more offshore than in the previous survey conducted in 2013.

In addition to the SCANS-III survey, experimental surveys were conducted in the fjords in northern Norway. In Verangerfjord there were many sightings of harbour porpoises, whereas in Porsangerfjord there were lower densities, suggesting that harbour porpoise numbers are quite variable between fjords.

The aerial survey north of Stadt did not cover some of the largest fjords, however when some large fjords, such as Trondheimsfjord was covered, there were not many harbour porpoises. This suggests that large fjords may not be as important to harbour porpoises as the general coastal regions.

*Iceland*

Samples are being collected from by-caught animals by fishermen. 150 samples were collected in 2017, and 20 in 2016. This is an ongoing study for a genetics mark-recapture analysis.

*Faroe Islands*

It is legal to harvest harbour porpoises, but the numbers appear to be very low. Catch reporting is required to the sheriff, and the sheriff should thereafter report to the Ministry. The SC **recommended** that if harbour porpoises are taken, scientific samples should be collected.

*Greenland*

Previous satellite tagging has been presented to the SC. Results from an ongoing genetics study looking into stock structure may be available next year. The SC encouraged these results to be included in larger analysis, and Greenland reported that they can collect more samples each year.

A PhD study on distribution and dive patterns, primarily based on the tagging, is expected in 2018.

*General*

As stock structure is an important question in the North Atlantic, the SC encouraged a combined analysis genetics, and encouraged NAMMCO countries to provide samples.

*Harbour Porpoise Working Group*

At NAMMCO-25, Council endorsed a recommendation for a HPWG meeting in 2018. The SC **recommended** that the HPWG be postponed until 2019 in order to ensure that the results from ongoing analyses are completed in time to be presented to the WG.

***Comments and discussion by the MCC***

The MCC noted the report of the SC.

The MCC **endorsed** the recommendation that scientific samples should be taken from harbour porpoises caught in the Faroe Islands.

It was also decided to further postpone the HPWG to 2020.

* 1. **Sperm whale**

**Update from the SC**

*Norway*

There were no sightings in the survey in the Barents Sea. Satellite tagging off Svalbard.

*Faroe Islands/Iceland*

There were multiple sightings during NASS2015, and it will be investigated whether it is possible to calculate an abundance estimate, in cooperation with Iceland. Sperm whales are a large component of the ecosystem in terms of biomass, SC **recommends** that an abundance estimate is calculated.

***Comments and discussion by the MCC***

The MCC noted the report of the SC and endorsed the recommendation that an abundance estimate is calculated (if possible).

* 1. **Bowhead whale**

*R-1.7.12 (ongoing): Greenland requests the SC to give information on sustainable yield based on new abundance estimates expected from TNASS2015 for all large baleen whales in West Greenland waters*

The SC recommended that R-1.7.12 be removed for bowhead whales because this does not apply to this species. Greenland had questions regarding this suggestion and will consult with the scientists at the GINR. Until then, this request should remain applicable for bowhead whales.

**Update from the SC**

*Norway*

Collaborative fieldwork with NPI, GINR and Russian colleagues on satellite tagging and biopsying bowhead whales in the Fram Strait May-June 2017 Tracking results so far show that the animals have spread out in the whole distributional area for this stock from south along the east coast of Greenland and into Franz Josef Land, Russia.

There were many open water sightings in the Barents Sea around 79°N 56°E including several groups of bowhead whales.

*Greenland*

During the winter and August survey of the NEW polynya there were many sightings of bowhead whales. No estimate is available yet, but these may be presented next year. Tagging efforts in Disko Bay are ongoing.

*Canada*

Biopsy samples and photographs using drones were collected from bowhead whales in Cumberland Sound as part of developing genetic mark-recapture and photo-id catalogues to study abundance and life history characteristics.

**Updates from Member Countries**

Canada informed the MCC that there is a small harvest of bowhead whales, with a combined maximum take of 7/year. Of this, 5 are allocated to Nunavut and 2 to Nunavik. Licenses are issued by DFO for each harvest that has been approved by the regional wildlife organisation. Hunt 1 or strike 2, whichever is first. Canada is happy to provide this, and any additional information to NAMMCO.

17 bowhead hunts approved, only 5 hunts conducted between 2015 and 2017, 4 bowheads successfully landed. Seth please re-write as necessary

NTI informed the MCC that the high costs associated with conducting the bowhead hunts are one of the main reasons why there have not been many hunts.

Greenland informed the MCC that there was a quota 2, however there were no catches in 2017. Hunting period 1 April to 31 December. Two dead bowhead whales were found floating in East Greenland. Canada asked if the cause of death for the dead floating was determined, however Greenland informed that the exact cause could not be found.

***Comments and discussion by the MCC***

The MCC noted the report of the SC.

* 1. **Blue Whale**

**Update from the SC**

*Norway*

Four blue whales were biopsied off Svalbard in 2017 in an ongoing study. Although no blue whales were seen off the shelf break where they would be expected, during the August survey many were seen north of Svalbard. There have been 4 summer surveys, and Norway is preparing an analysis of the presence of blue whales in relation to relevant prey species in the upper 100-150 m.

*Greenland*

Last year was first year with consistent sightings of blue whales in Disko Bay all summer.

*Photo-ID*

There is an ongoing photo-ID study in Iceland and NAMMCO countries are encouraged to submit photos. Blue whales that were previously seen in Canada have not been seen recently, and they are not seeing calves. It would be good to have more cooperation from photo-ID studies in other areas to see if those whales have been seen in other areas. The SC encouraged more cooperation on photo-ID studies.

**Updates from Member Countries**

No updates were given.

***Comments and discussion by the MCC***

The MCC noted the report of the SC.

**5. Any other Business**

The MCC discussed whether it would be more efficient to not present information that is contained in the NPRs to the MCs. Greenland noted that while it is correct that some of this information is provided in the NPRs, the presentation of this information to the MCs ensures good dialog among the parties.

Levermann thanked the participants, especially Haug, Mikkelsen, Prewitt and Winsnes. The MCC thanked Levermann for her efficient and able chairing of all three Management Committee meetings.