



## NORTH ATLANTIC MARINE MAMMAL COMMISSION

### Report of the Meeting of the Management Committee for Cetaceans

9 February 2016, Oslo, Norway

### **DRAFT REPORT**

#### **1. CHAIRMAN'S OPENING REMARKS**

Chair Ulla Svarrer Wang (Faroe Islands) welcomed all participants to the meeting.

The Chair drew the attention of the MC to the following documents (Appendix 2):

- NAMMCO/2/MC/5 (Past proposals for Conservation and Management)
- NAMMCO/23/MC/6 (Summary of Requests to the Scientific Committee)
- NAMMCO/23/7 (Scientific Committee Report, item 8 and ANNEX 1, ANNEX 2)

#### **2. ADOPTION OF AGENDA**

The agenda was adopted without revision (Appendix 1).

#### **3. APPOINTMENT OF RAPPORTEUR**

Jill Prewitt (Scientific Secretary) was appointed as rapporteur, with the help of participants when needed.

#### **4. NASS 2015**

##### Update from the NASS2015 Steering Committee

Mads Peter Heide-Jørgensen, the Chair of the NASS2015 Steering Committee, presented an update on the status of NASS2015.

On behalf of the NASS2015 Steering Committee and the SC, Heide-Jørgensen extended thanks to the Council and also to the Norwegian MFA for majority of the funding for the extension surveys. Although he acknowledged that the funding arrived quite late which presented many challenges in performing some aspects of the survey, among them difficulties in chartering aircraft for the Greenlandic surveys.

Heide-Jørgensen reported that in East Greenland, their surveys achieved good coverage, however there were challenges with weather in West Greenland due to unfavourable weather conditions, because the survey was pushed late in the season. There were large numbers of fin whales sighted in East Greenland which is clearly an area of importance for fin whales. For minke whales, this survey may need to be repeated in WG, as quotas have been reduced due to lower estimates from recent surveys.

The Icelandic shipboard surveys covered 5 strata and achieved relatively good coverage and a good number of sightings. Large numbers of blue whales and killer whales were sighted, which may mean that the SC could be able to provide more useful killer whale advice in the future. The coastal areas of Iceland were covered by aerial surveys, however due to very unfavourable

weather conditions a large area of north Iceland was not covered. This presents a problem for developing a minke whale abundance estimate.

The surveys in Norway included areas both in the CM area (Jan Mayen) and the Norwegian Sea. About 50% of the CM area was covered, with few baleen whale sightings, however the results should still be a useful survey for developing abundance estimates.

The Faroese surveys mainly concentrated on pilot whales in the Faroese area and the extension surveys South West of the Faroese area. These results will be combined with sightings from the Icelandic surveys and appear to be sufficient for developing an abundance estimate for pilot whales. The Faroese fin and minke whale sightings will also be combined with the Icelandic data.

The NASS Steering Committee also recommended a plan for analysing the data from these surveys. The data has been submitted to IMR (Øien) to create maps of survey effort. After the initial analysis completed, the preliminary results will be presented to an AEWG meeting proposed for mid-May 2016 in Copenhagen. This meeting will review these initial results.

#### Comments from the MC

The member countries thanked the Steering Committee for their work, and agreed with the Steering Committee's recommendation that they have completed their work and will refer future work to the SC and its Abundance Estimation WG (AEWG). The MC looks forward to the future work of the SC, and its AEWG, on the analysis of the NASS2015 data.

Iceland updated the MC that they have received funding for repeating the coastal aerial minke whale survey in 2016. The MC looks forward to the results of this survey.

### **5. CONSERVATION AND MANAGEMENT MEASURES FOR WHALE STOCKS**

The Chair of the SC, Thorvaldur Gunnlaugsson from Iceland, presented the updates from the SC for each species.

#### **5.1. Fin whales**

*East-Greenland –Iceland  
West Greenland*

#### Requests by Council for advice from the Scientific Committee

There are three active requests to the Scientific Committee.

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

***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-3.1.7 amended (ongoing):*** *complete an assessment of fin whales in the North Atlantic and also to include an estimation of sustainable catch levels in the Central North Atlantic. Amendment: "While long-term advice based on the outcome of the RMP Implementation Reviews (with 0.60 tuning level) is desirable, shorter term, interim advice may be necessary, depending on the progress within the IWC. This work should be completed before the annual meeting of the SC in 2015."*

#### Update from the Scientific Committee

Iceland informed the MC on a recent capelin survey which also had whale observers on board using the NASS-15 methodology. This survey generated the first abundance estimate for fin whales in the capelin area in the autumn (October-November). This estimate was higher than expected.

#### *New advice*

The Large Whale Assessment Working Group met 5-7 October 2015, and they provided advice on estimation of sustainable catch levels of fin whales in the Central North Atlantic. The SC **agreed** with the conclusions of the WG that a catch limit of 146 fin whales that can be taken anywhere in the EG+WI region is safe and precautionary, and that this advice should be considered valid for a maximum of 2 years (2016 and 2017). This is interim advice because 1) the abundance estimate is close to 10 years old, and 2) delays in the IWC RMP *Implementation Review* process, which is scheduled for completion in June 2016.

#### *Future work*

The SC recommends another Large Whale Assessment WG be held in fall 2016 to use new abundance estimates generated from NASS2015 to generate new, longer-term advice.

#### *Research Update*

Iceland is conducting studies using both genetics and tagging to inform further on stock structure of fin whales in the North Atlantic. Satellite tagging is ongoing, and results are not expected within the next couple of years. The genetics work is currently using genetics to identify close kin relationships. Iceland is working on obtaining samples from Norway and Greenland, both from catches and biopsies. Biopsies will be very useful particularly because they come from a wider geographical area. The SC encouraged this work, and urged member nations to participate by supplying samples.

The SC **encouraged** collaborative genetic research led by Iceland aimed at identifying close kin relationships within the North Atlantic and urged member nations to participate by supplying samples.

#### Comments from the MC

The MC discussed that the quota advice is slightly lower than the previous advice, which reflects that the abundance estimate is now older than for the previous assessment. Iceland reported that the total catch in 2015 was 155.

The MC discussed what the outcome would be of using a tuning of 0.72, and was informed by the SC Chair that the advice would be lower. The IWC SC has previously recommended using a tuning level of 0.6, however the IWC Commission did not accept this advice. The NAMMCO SC has been using tuning of 0.6.

The MC **endorsed** the advice of the WG and the SC. Iceland commented that they encouraged a NAMMCO WG for long-term advice. The SC Chair reported that they will not wait for the completion of the work in the IWC, and will move forward with the NAMMCO WG. **Iceland proposed amending R-3.1.7 to the following text R-3.1.7 amended (ongoing): complete an assessment of fin whales in the North Atlantic and also to include an estimation of sustainable catch levels in the Central North Atlantic. A long-term advice based on a the new NASS-15 abundance estimate and the available results from the RMP Implementation Reviews (with 0.60 tuning level) is needed in 2016.**

The MC **agreed** with the SC to encourage members to collect genetic samples of fin whales and provide them to Iceland for this project.

#### Status of past proposals for conservation and management

Proposal **3.1.3**: (assessment of fin whales in the Faroes) ...uncertainties about stock identity are so great as to preclude carrying out a reliable assessment of the status of fin whales in Faroese waters, and thus the Scientific Committee was not in a position to provide advice on the effects of various catches.

#### Comments from the MC

There are presently no plans for a fin whale hunt in the Faroes, but the Faroes would like to continue investigating fin whales as potential future resource that could be sustainably utilised.

#### Updates

Greenland informed the MC that they have been given advice for fin whales from IWC which is a quota of 19 fin whales; 11 fin whales were caught in 2015.

### **5.2. Humpback whales**

#### *Greenland*

#### 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*

The SC noted that **R-1.7.12** has not been considered yet as the abundance estimate from NASS2015 is not yet available.

**R-3.2.4 (ongoing)**: *conduct a formal assessment following the completion of the T-NASS...In addition the Scientific Committee is requested to investigate the relationship between the humpback whales summering in West Greenland and other areas and incorporate this knowledge into their estimate of sustainable yields of West Greenland humpback whales.*

#### Update from the Scientific Committee

#### *New advice*

The Large Whale Assessment WG met 5-7 October 2015, and provided advice on sustainable yields of West Greenland humpback whales. Based on the work of the WG, the SC **endorsed** the advice of 10 strikes per year based on the *SLA* that was accepted by the IWC, and noted that a higher number may be sustainable (because the *SLA* calculations are based on the 10 strikes per year that were requested by Greenland to the IWC and included needs).

#### *Research update*

Iceland reported that they satellite tagged a humpback whale which was followed between North Icelandic waters and Silver Bank off the coast of the Dominican Republic. This is the first documentation of a complete migration track of a baleen whale between feeding and breeding grounds in the North Atlantic.

#### Comments by the MC

This situation with the IWC's Needs Statement was discussed during the Joint Session and as discussed in that meeting, this management advice does not achieve the management objectives of NAMMCO.

Greenland proposed a **new Request for advice from the Scientific Committee**: "*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.*"

The MC discussed how Greenland would use the advice from the NAMMCO SC, given that the current management advice is taken from the IWC. Greenland informed that the quota situation in the IWC is not necessarily stable, and they would like to obtain advice based on sustainable use rather than the "Needs Statement." The next quota block in the IWC is starting in 2018 in IWC, and if quotas are not given by the IWC, then the advice generated by NAMMCO WG based on scientific advice and sustainability could be used.

### Updates

The current quota is for 10 whales, with a carryover of 2, and 6 whales were caught in 2015.

### Status of past proposals for conservation and management

#### **3.7.1** (sustainability of the hunt in Greenland)

Proposal 3.7.1 deals with sustainability of the hunt in Greenland which will be addressed by the Large Whale Assessment WG proposed for fall 2016.

#### **5.3. Minke whales**

*Eastern North Atlantic*

*Central North Atlantic*

*West Greenland*

### 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-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-3.3.4 amended(ongoing)**: *full assessment, including long-term sustainability of catches, of common minke whales in the Central North Atlantic... assess the short-term (2-5 year) effects of the following total annual catches: 0, 100, 200 and 400*

### Update from the Scientific Committee

#### *New advice*

The Large Whale Assessment Working Group met 5-7 October 2015 in Copenhagen, where they provided advice on catch limits for common minke whales in the CIC sub-area. The SC **endorsed** the advice provided by the WG that a catch limit of **224** common minke whales in the CIC sub-area is safe and precautionary, and that this advice should be considered valid

for a maximum of 3 years (2016 – 2018). This is interim advice because 1) the most recent abundance estimate is from 2009, which will then be approaching 10 years old, and 2) delays in the IWC RMP *Implementation Review* process.

#### *Research update*

Iceland reported that they will develop abundance estimates from the results of the shipboard NASS2015 surveys. However, unfavourable weather conditions seriously impacted the coastal aerial survey and the data are insufficient to develop abundance estimates for the entire Icelandic continental shelf area (CIC). Iceland has submitted a proposal to fund a repeat survey in 2016, and the decision on this funding is expected in early 2016.

#### Comments by the MC

The MC **endorsed** the new advice provided by the SC and welcomes the results of the repeated aerial coastal survey.

#### Update

Norway informed the MC that they have a carryover system, and from a quota of 1,286 minke whales, 660 were caught by 21 vessels.

Iceland reported that with the carryover system, there was a quota of 275 minke whales, and 29 were caught in 2015 by a single vessel.

Greenland reported a catch in 2015 in West Greenland of 164 minke whales with a carry-over of 15 from 2014. 130 were caught. The quota for East Greenland was 12 minke whales with a carry-over of 3 from 2014. 6 were caught.

Greenland raised a question to the MC of whether NAMMCO has a shared policy of how to divide quotas, or whether there could be future discussions in NAMMCO of how to share quotas and advice for shared resources. Greenland suggested that bilateral dialogues between member countries would be a good way forward in allocation of resources from shared stocks.

The Faroes noted that they support the principle that when there are shared stocks between member countries, the parties come to an agreement on how to share these stocks.

#### **5.4. Beluga**

##### *West Greenland*

#### 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 22*

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

#### Status of past proposals for conservation and management

Proposal **3.4.4** is the only relatively recent proposal for conservation and management, and it deals with quotas. New quota advice was given at last year's NAMMCO-JCNB Joint Working Group meeting.

Update from the Scientific Committee

The NAMMCO-JCNB Joint Working Group (JWG) met in Ottawa, Canada, 11-13 March 2015 to update the assessment and advice for belugas.

*New advice*

The SC **endorsed** the recommendations of the JWG that the total annual removal of beluga in West Greenland is no more than 320 over period from 2016 to 2020 (Table 2 in SC report).

The JWG also noted that under-reporting of catches remains a potential problem, and this is problematic as no straightforward correction is possible.

Comments by the MC

The MC endorsed the advice of the JWG and the SC.

Greenland informed the MC that the JCNB meets every 2<sup>nd</sup> year, and their last meeting was in fall of 2015. The JCNB is based on a MOU, and is not a binding agreement. Through the JCNB, Canada and Greenland coordinate on science, and the management and monitoring of the hunt. When they receive scientific advice, the decision is made by the individual governments on how to follow this advice.

Greenland reported that the quota in 2015 for beluga in West Greenland was 320, and 120 were caught. In Qaanaaq, the quota was 20 and 7 were caught. A technical 5 year quota block is given of 100 animals, with the first year starting in 2014.

The MC noted that the recovery of beluga stocks in Greenland is a success story (see Figure 2 of the SC report) and clearly shows that after quotas were set there have been steady increase in beluga abundance estimate. The MC commends the work of Greenland on this issue, and highlights this good work.

Greenland updated the MC that although belugas are rarely seen in EG, but a few recent observations have been made in the Tasiilaq and Ittoqqortoormiit areas. It is unknown how many animals are in EG. Greenland is interested in knowing which stocks these beluga might be coming from (Svalbard being one possibility). The Ministry have consulted with GINR, which informed them that beluga are not currently a research priority. The Ministry has therefore proposed asking hunters to make written records of the beluga observations and behaviour.

Greenland proposed a **new Request for advice from the Scientific committee:** *The Council requests the SC to collect data and sightings on beluga in East Greenland when ever feasible.*

Global Review of Monodontids meeting - planning

The Secretariat updated the MC that the planning for this meeting continues. An earlier plan was to hold the meeting in conjunction with the Marine Mammals of the Holarctic meeting in Russia this fall (October 2016), however, the organising committee now suggested that the meeting would be better held in conjunction with the next JCNB JWG meeting in March 2017 in Copenhagen. The organising committee consists of Arne Bjørge (Chair, Norway), Jill Prewitt (NAMMCO), Robert Suydam (North Slope Borough, Alaska, USA), Roderick Hobbs

(USA), Steve Ferguson (Canada), Randy Reeves (Canada), Rikke Hansen (Greenland), and Olga Shpak (Russia).

The SC suggested that the organizers inquire whether the Arctic Council's CAFF WG would be interested in joining NAMMCO organizers for this meeting. The CAFF Secretariat was contacted, and has informed the NAMMCO Secretariat that the CAFF WG is interested in participating in the organization of the meeting. The Secretariats will hold a meeting in the near future to discuss the CAFF's level of involvement with the meeting.

### Comments by the MC

Greenland informed the MC that the responsibility of management for narwhal and beluga is in the JCNB. Greenland recognizes the importance to work internationally and although they support working together on the Global Review of Monodontids meeting, the Arctic Council will not provide management advice. The MC agreed that this meeting will not generate management advice, but will instead be a forum for sharing scientific findings.

#### **5.5. Narwhal**

*West Greenland*

*East Greenland*

### 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 22*

As was discussed in the Joint Session, the Disturbance Symposium was held to address this request, and the SC will consider the full report at its next meeting.

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

This request is regularly addressed at the NAMMCO-JCNB JWG meetings.

### Update from the SC

#### *Catch allocation model*

Mads Peter Heide-Jørgensen from the Greenland Institute of Natural Resources gave a presentation to the MC on the Catch Allocation model that has been developed in the NAMMCO—JCNB JWG to assign catches from the narwhal metapopulation that is shared by Canada and Greenland to the appropriate summering aggregation, by different hunting grounds and seasons. The model includes all information that is available on narwhal movements including telemetry data, all abundance estimates, seasonal occurrence and historical catch data.

Many years of work on narwhal (and beluga) regarding shared stocks between Canada and Greenland have indicated that:

- 1) Narwhals use strict migratory corridors, Move through these at predictable certain times of the year
- 2) Strict wintering grounds



3) Discrete summering aggregations, do not intermingle in the summer

This information is mainly based on satellite tracking, because the low genetic diversity of narwhals does not allow for discrimination of stock structure.

A total of 8 distinct summering stocks of narwhals have been identified and whales from these stocks are hunted at 11 hunting grounds in different seasons. Different fractions of the migrating stocks of narwhals are available at these 11 hunting grounds, during the different seasons giving a total of 24 hunts.

The allocation model was developed to mirror these seasonal patterns of occurrence consists of a matrix with 24 rows and 8 columns. The eight columns are the individual summer aggregations of Smith Sound, Jones Sound, Inglefield Bredning, Melville Bay, Somerset Island, Admiralty Inlet, Eclipse Sound, and East Baffin Island. The catch allocation model allocates the catches in different hunting areas and seasons to the different summer aggregations.

The NAMMCO SC agreed with the recommendations of the JWG and welcomed this new methodological development of the complex assessment situation for the narwhal metapopulation that is shared between Canada and Greenland. The advancement of the allocation model is considered a step forward and could potentially be applied in many situations where migratory populations are exploited in several areas under various jurisdictions.

Comments by the MC

The MC thanked Mads Peter for his informative presentation on this complex model.

Greenland informed the MC that after the new advice from the NAMMCO-JCNB JWG, they had to change the allocation of licenses. The Etah area received a quota of 5 for the first time. There were limits imposed for each zones in West Greenland, and the government have allocated different numbered licenses to each zone so that the catches can be tracked. With the implementation of this procedure, the quotas have increased in some areas and decreased in others, leaving some hunters are more appreciative than hunters in other areas. This has also increased the administrative workload, but Greenland has managed to implement this system reliably.

Greenland also noted that if new advice is expected on changing the boundaries of the summering aggregations, lots of time is requested to prepare. Greenland encouraged as much advance notice as possible.

KNAPK commented on the stock definition of narwhals, and informed the MC that experienced hunters have observed some differences in morphology and behaviour between different groups of narwhals. In addition, hunters have reported that after seismic testing in 2013, narwhals have changed their distributions.

In Greenland, a revision to the Executive Order regulating the hunt on narwhal and beluga (2016) was recently approved. It is based on the newest scientific information of stock status, area and hunting grounds.

The MC commends the work of the WG on the work of developing this model and endorses the use of the model in management procedures. The MC is also pleased to hear that Greenland has already implemented this advice into their management procedures.

#### Other updates from the Scientific Committee

##### *East Greenland narwhals*

The assessments of narwhals in the two stocks in East Greenland (Ittoqortoormiit and Tasiilaq/Kangerlussuaq areas) were updated with recent catch information. The updated assessment estimates a slightly smaller sustainable catch (Table 6 in the main report) than the previous assessment, reflecting that we are further away in time from the available abundance estimate. The total annual removal was estimated to be no more than 50 for the Ittoqortoormiit area and 16 for the Tasiilaq/Kangerlussuaq. The SC **agreed** with the advice of the JWG and noted that the quota for Tasiilaq was recently increased by 10 narwhals above the previous management advice.

##### *Recommendations for research*

The SC **recommended** that future research includes

- 1) New surveys of narwhals in the two stocks where recommended catch levels has decreased, i.e. East Greenland and Melville Bay
- 2) More satellite tag and dive data from the stocks in West Greenland and Eastern Canada to obtain more information about movement between summer aggregations and information for availability bias for survey correction factors

#### Comments from the MC

The MC endorsed the advice from the SC on narwhal catches.

Greenland informed that there is large pressure for a new survey in EG in 2016 due to the decreased quotas, and the MC endorsed the recommendations for new research, which includes new surveys for narwhals in East Greenland and Melville Bay.

Greenland reported quotas and catches of narwhal in 2015 narwhal: West Greenland; quota, 144, catch 72. Inglefield Bredning; quota 85, caught 75; A technical 5 year quota block is given of 485 animals, first year starting in 2014.

For Melville Bay the quota was 81, with a catch of 71. In East Greenland the quota was 88 plus an extra political allocated quota of 10, with a catch of 94.

#### Status of past proposals for conservation and management

**Proposal 3.3.6:** The Management Committee strongly **recommends** that “struck and lost” data be collected from all areas and types of hunt and that all “struck and lost” animals be included in the advice (NAMMCO 19).

#### Comments by the MC

Greenland informed the MC that hunters are required to report struck and lost.

Greenland will propose a new request for advice from the Scientific Committee regarding collection of struck and lost data. This request will come under walrus.

#### Global Review of Monodontids meeting - planning

The planning for this meeting was discussed under belugas.

#### **5.6. Sei whales**

##### 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*

##### Updates from the Scientific Committee

Iceland reported that there were not very many sightings during NASS2015 but that this was not unexpected as the timing and coverage of the survey was not appropriate for estimation of sei whale abundance.

Iceland informed the SC that they have been requesting a RMP *Implementation Review* in the SC of the IWC, however it was decided at this year's IWC SC meeting to postpone this work.

#### **5.7. Northern bottlenose whales**

##### *Faroe Islands*

##### Status of past proposals for Conservation and Management

There are no current Proposals for Conservation and Management.

##### Updates from the SC

The Faroese data from T-NASS 2007 has been integrated into a model-based assessment of deep diving species being done in the UK. Mikkelsen informed the SC that the manuscript is planned to be submitted within a few months.

##### Comments from the MC

The Faroes informed the MC that 2 whales stranded in 2015. They further informed the SC that the data from TNASS-07 will be incorporated into a paper together with the results from the CODA survey.

The MC noted that there is no direct harvest of bottlenose whales in the Faroes, only strandings.

Greenland have reported catches of bottlenose whales in the past, however validation of these catches have revealed that they are actually catches of harbour porpoises that have been reported wrongly on the reporting catch form. An update will be provided in the future. This is not a species that is normally targeted in Greenland.

## 5.8. Killer whales

*Greenland*

### 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.*

### Updates from the Scientific Committee

At the SC meeting in 2013, the SC noted higher levels of annual catches (19 on average per year from 2010 and 2012) in West Greenland. The SC was then informed that the recent catch statistics on killer whales in West Greenland have not been validated, and at this meeting the SC noted that these catch statistics still have not been validated. The SC **reiterates the recommendation** that all catch data on killer whales are validated before the next SC meeting, so that it is possible for the SC to monitor the development of the hunt.

### Comments by the MC

Greenland informed the MC that validation of these catches is expected to be completed in 2016, going back to 2010. The Ministry have received reports of catches in 2014 and 2015.

The MC looks forward to having more information at the next MC meeting.

## 5.9. Long-finned pilot whales

*Faroe Islands*

*West Greenland*

### 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-3.8.3 (ongoing):** *to develop a proposal for the details of a cost-effective scientific monitoring programme for pilot whales in the Faroes*

**R-3.8.4 (ongoing):** *methodology and the coverage of T-NASS take into account the need for reliable estimates for pilot whales. In addition, priority should be given to the analysis of data on pilot whales after the completion of T-NASS*

**R-3.8.5 (ongoing):** *assess the status of long-finned pilot whales in West Greenland waters and provide minimum estimates of sustainable yield*

**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*

### Update from the SC

Regarding **R-1.7.11**, the SC awaits results of NASS2015 and expects that these will allow for the development of an abundance estimate, and will be incorporated into the trend analysis.

Regarding **R-3.8.3**, taking into account the recommendations made by the 2008 Pilot Whale WG (Qeqertarsuaq, Greenland) that were organized in response to this request, the Faroes has developed a scientific monitoring programme to update biological parameters. As reported in the NPR, a number of samples have been collected including samples for ageing, reproductive information, and stomach samples for diet. The plan is to continue to collect samples from every drive and deliver results to the next assessment meeting. Based on this information, the SC considers **R-3.8.3 completed** and awaits further guidance from Council.

**R-3.8.4** refers to T-NASS 2007, and the SC considers this request now **completed**.

Regarding **R-3.8.5**, the SC considers this request replaced by **R-3.8.6**. The remaining unanswered portions of **R-3.8.6** awaits new data from NASS2015. The West Greenland part was dealt with during SC/19 and the SC refers Council to that report.

#### Comments by the MC

MC agrees to await results of NASS2015 to address R-1.7.11.

MC agrees with the SC that R-3.8.3 is completed.

The MC agrees with the SC that R-3.8.4 is completed.

The MC agrees with the SC that R-3.8.5 can be replaced by R-3.8.6.

MC awaits the results of NASS2015 and hopes that these will help address R-3.8.6.

#### Update from Scientific Committee

##### *Sampling*

The Faroes have developed a scientific monitoring programme to update biological parameters. A number of samples have been collected including samples for ageing, reproductive information, and stomach samples for diet. The plan is to continue to collect samples from every drive and deliver results to the next assessment meeting. The SC commended the Faroes for the work on the sampling programme.

##### *Satellite tagging*

Tags placed after NASS2015, preliminary results showed that the whales moved widely throughout the North Atlantic. Hope to continue tagging efforts, up to 4 groups.

The aim is to complete a full assessment of pilot whales in the near future. The past approach (due to lacking data to perform a full assessment) was to perform an ad hoc advice calculating the abundance that would be needed to sustain the hunt in the Faroes.

#### Comments from the MC

The MC welcomes the update on the sampling programme in the Faroes and encourages this work to continue.

MC looks forward to the completion of a full assessment of pilot whales in the North Atlantic.

Status of past proposals for conservation and management

There are no current proposals for Conservation and Management.

Updates

Greenland informed the MC that catches appear to be increasing over the last 10 years (from an average of 130 to an average of close to 300). It is unknown whether this is due to a change in distribution or if this species has become targeted more heavily by hunters. There is currently no executive order for pilot whales (or any other toothed whales other than beluga and narwhal) in Greenland. There are no plans to collect samples from pilot whale catches in Greenland.

Faroese reported a catch of 501 pilot whales in 6 drive hunts in 2015.

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

*Faroe Islands*

*West Greenland*

Requests by Council for advice from the Scientific Committee

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

Update from the Scientific Committee

Some sampling has been occurring in the Faroes previously, however no new samples have been collected recently because there have been very few catches in recent years. The results from the previous sample collections have yet to be published.

Comments by the MC

The MC notes the report of the SC, awaits the publication from the previous sampling.

The Faroes informed the MC that catches in the Faroes have decreased greatly after 2007, with few drive hunts in recent years.

Greenland updated the MC that catches in the last 5 years on average were close to 190 dolphins, compared to previous 5 years where annual average numbers were 70. It is unknown whether this is because of increased distribution in Greenland or if dolphins have become a more targeted species by the hunters.

MC discussed whether there were any plans in Greenland to collect samples from the catches, and Greenland informed that they had no plans for sample collection.

**5.11. Harbour porpoise**

*Greenland*

*Iceland*

*Norway*

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 Scientific Committee

Bycatch is the main issue with harbour porpoise in Norway. Previous calculations in Norway on level of bycatch may have included an error, which will likely reduce the estimates, but the bycatches are still of concern. As mentioned in the JMC, a new aerial survey for harbour porpoises will be conducted from southern Norway up to Lofoten for a new abundance estimate, the goal mainly being assessing the sustainability of these bycatches.

Mitigation studies using pingers are being conducted in the lumpfish gillnet fisheries in Lofoten. These studies will continue, and Norway has obtained external funding for this work.

In Iceland, harbour porpoises are mainly caught in gillnets as bycatch in the lumpfish fishery.

Comments by the MC

Greenland informed the MC that they have not seen any changes in catch numbers, and the average annual catch has been stable at about 2,500. Bycatch is not separated out currently from catch reporting, but with the new MSC process with the lumpfish fishery, they may be able to obtain some information.

Status of past proposals for conservation and management*Proposal 3.8.1: abundance estimates, bycatch/removals estimates*

These issues are being addressed by both the Bycatch WG, and a future Harbour Porpoise WG that will be scheduled when new information is available.

**5.12. Sperm whale**Updates from the SC

A photo-ID study is being conducted in Norway, and sperm whales are also being counted during sightings surveys.

Comments by the MC

MC notes the report.

**5.13. Bowhead whale**

*East Greenland - Svalbard  
West Greenland*

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*

The MC was informed that there likely will not be a new abundance estimate for bowhead whales generated from NASS2015.

Updates from the Scientific Committee

A strip-width survey estimated 100 (95% CI: 32-329) bowhead whales in the North East Water Polynya off Northeast Greenland in 2009 (Boertmann et al. 2015). This estimate is considerably higher than observations in the past.

Passive acoustic devices in Fram Strait between Greenland and Svalbard detects bowhead whales year round.

Comments by the MC

The MC notes and welcomes the higher than previous estimates.

Greenland reported a catch of 1 bowhead in 2015, which was the first catch in 3 years. The current quota is for 2 whales, with a carry-over system.

**5.14. Blue Whale**

Updates from the Scientific Committee

Iceland reported that they had tagged 2 blue whales during 2014.

An increasing number of blue whales are reported in the waters around Svalbard including in inner parts of the fiord systems especially on the west coast. As reported for fin whales, the Norwegian Polar Institute has started instrumenting animals with satellite tracking devices and collect biopsies for studies of genetics diet and ecotoxicology. In 2015, 3 whales were tagged. Blue whales were also detected on the passive acoustic listening devices that have been deployed at various sites around Svalbard and thus collecting data on the phenology of arrival and departures to the area.

Comments by the MC

The MC noted the SC report.

**6. ANY OTHER BUSINESS**

The Chair thanked Thorvaldur Gunnlaugsson for his presentations of the SC report, and thanked the members of the MCC. The report will be prepared and presented to Council for adoption.