

2.1

REPORT OF THE MEETING OF THE MANAGEMENT COMMITTEE FOR CETACEANS

26 February 2014, Oslo, Norway

1. CHAIRPERSON'S OPENING REMARKS

The Chair, Ulla S. Wang (Faroe Islands), opened the meeting and welcomed all participants (Address Section 5.3).

2. ADOPTION OF AGENDA

The agenda (Appendix 1) was adopted. The Chair informed the Management Committee for Cetaceans (MC) that agenda items 6. to 9. would be discussed in a joint session with the Management Committee for Seals and Walrus.

3. APPOINTMENT OF RAPPORTEUR

Jill Prewitt (Scientific Secretary) was appointed as rapporteur.

4. CONSERVATION AND MANAGEMENT MEASURES FOR WHALE STOCKS

Documents to the meeting were listed in Appendix 2. The Chair of the MC Cetaceans, Ulla S. Wang (Faroe Islands), informed the MC that past proposals for conservation and management and responses with reference to document NAMMCO/22/MC/3 (Section 2.2 Annex 1) and past requests to the Scientific Committee and responses with reference to document NAMMCO/22/MC/4 (Section 2.2 Annex 2), and NAMMCO/22/MC/5 (NAMMCO Annual report 2012, Section 2.1, Appendix 3) – recommendations to member countries in 2012, would be summarised under each species agenda item.

All new recommendations to member countries on scientific research arising and approved by the Management Committee for Cetaceans in 2014 are contained in Appendix 3.

Also under the agenda item for each species, the Chair of the Scientific Committee, Thorvaldur Gunnlaugsson (Iceland), presented the information on whale stocks from the Scientific Committee report (NAMMCO/22/5, Section 3).

4.1. Fin whales

Status of past proposals for conservation and management

The past recommendation to carry out simulation trials was summarised and discussed further in relation to **R-3.1.7**.

Requests from Council for advice from the Scientific Committee

There was one ongoing request to the Scientific Committee:

R-3.1.7 – NAMMCO/17-2008 (Ongoing): to 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.

Update from the Scientific Committee

Catch limits for fin whales in Icelandic waters are based on management advice provided by the Scientific Committee of NAMMCO and the work of the Scientific Committee of the IWC using its Revised Management Procedure (RMP). The latest advice was for an annual catch of 154 whales in the West Iceland area and applies for the period 2011-2015. The Marine Research Institute (MRI, Iceland) has already provided advice for the years 2014 and 2015 in accordance with this advice from NAMMCO. No catches of fin whales were taken in 2011 and 2012 but 134 animals were taken in 2013. The catches taken during 2011-2013 amount to 29% of the TAC set for this period and 17% of the NAMMCO advice for the five year period (2011-2015).

In 2013 the Scientific Committee of the IWC initiated a RMP implementation review for North Atlantic fin whales. The review could not be completed as planned in 2013 and will be finalized in 2014. The IWC Scientific Committee agreed changes to the range of MSYR to be applied in the RMP. These changes required time consuming re-running of all simulation trials underway within the IWC. Until these are finalized, there is no point in carrying out re-runs with 0.6 tuning level recommended by the NAMMCO Scientific Committee. There are also some unresolved questions about stock structure hypotheses in IWC that may require additional runs, however, these stock structure concerns were not shared by the NAMMCO Scientific Committee and it can therefore move forward with an assessment. As the present advice expires in 2015, the NAMMCO Scientific Committee **recommended** convening a meeting of the working group on large whale assessments in the autumn of 2014 to provide further management advice on fin whales off Iceland.

Updates from Member Countries

Greenland reported that they have been following the advice on quotas from the Scientific Committee of the IWC on 19 whales. The quota of 19 had not been used last year when 9 whales were caught.

Greenland requests the NAMMCO Scientific Committee to give information on sustainable yield based on new abundance estimates expected from T-NASS 2015 for all large baleen whales in West Greenland waters.

Conclusions by the Management Committee

The Management Committee **endorsed** the Scientific Committee recommendation for a Large Whale Assessment Working Group to convene in the autumn 2014.

New request R-1.7.12: The Management Committee **requests** the Scientific Committee to give information on sustainable yield based on new abundance estimates expected from T-NASS 2015 for all large baleen whales in West Greenland waters.

4.2. Humpback whales

Status of past proposals for conservation and management

Nothing new to report.

Requests by Council for advice from the Scientific Committee

There was one pending request to the Scientific Committee:

R-3.2.4 - NAMMCO/15-2006: to conduct a formal assessment following the completion of the T-NASS. Furthermore to investigate the relationship between the humpback whales summering in West Greenland and other areas and incorporate this knowledge into the estimate of sustainable yields of West Greenland humpback whales.

Update from the Scientific Committee

With reference to the pending request from NAMMCO 15 (**R-3.2.4**) to conduct a formal assessment of humpback whales following the completion of T-NASS 2007, the Scientific Committee noted that it had completed the assessment for West Greenlandic waters. The Scientific Committee has not yet initiated assessment in other areas and agreed to seek further guidance from the Council regarding that aspect of the request.

If the Commission considers request **3.2.4** a priority, the Scientific Committee will consider this request in conjunction with the fin whale meeting.

Updates from Member Countries

Greenland reported that they have been following the advice on quotas from the Scientific Committee of the IWC on 10 whales. The quota of 10 had not been used last year where 8 whales were caught.

Conclusions by the Management Committee

The Management Committee **concluded** that the Large Whale Assessment Working Group should not consider humpback whales at the upcoming meeting in the autumn 2014.

4.3. Sei whales

Status of past proposals for Conservation and Management

No past proposals.

Requests from Council for advice from the Scientific Committee

There was one pending request to the Scientific Committee:

R-3.5.3 amended NAMMCO/19-2010 (Ongoing): to 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 Scientific Committee

R-3.5.3: There is no new information available with regards to this request.

The Scientific Committee noted that the Scientific Committee of the IWC has initiated a review of available data on North Atlantic sei whales with the view conducting an RMP implementation. Given the busy schedule of the IWC RMP sub-committee, such an implementation is not expected to be completed until 2017 or later. To avoid double work, the NAMMCO Scientific Committee agreed to monitor the outcome of the IWC Scientific Committee review of available data scheduled in 2014 before proceeding with an assessment.

Sei whales are not a T-NASS 2015 priority, but the survey may provide new information for abundance estimate.

Conclusions by the Management Committee

The Management Committee **endorsed** the Scientific Committee recommendation to wait for the outcome of the IWC Scientific Committee review before proceeding with an assessment.

4.4. Minke whales

Status of past proposals for Conservation and Management

There were no past proposals for Conservation and Management to discuss.

Requests from Council for advice from the Scientific Committee

There was one ongoing request (**R-3.3.4**) specific to minke whales, and one request from the Marine Mammals and Fisheries Interactions (**R-1.1.6**) regarding minke whales, from Council to the Scientific Committee:

R-3.3.4 - NAMMCO/17-2008 (Ongoing): to conduct a full assessment, including long-term sustainability of catches, of common minke whales in the Central North Atlantic once results from the 2009 survey become available.

R-1.1.6 – NAMMCO/16 02-2007 (Ongoing): The Commission requested the Scientific Committee to review the results of the Icelandic programme on the feeding ecology of minke whales and multi-species modelling as soon as these become available.

Update from the Scientific Committee

R-3.3.4 [this request was not discussed at the Scientific Committee meeting]

Regarding **R-1.1.6**, from NAMMCO/22/5 (SC20 Report): The Scientific Committee draws the attention of the MC to the results from the IWC Expert Panel review process and the response papers (Vikingsson *et al.* 2013) and reports (IWC SC/65A/Rep03) detailing the results from the program. The Scientific Committee notes that the quality of the research will be further determined through the peer-review publication process. The Scientific Committee also **acknowledged** that the IWC review is set according to guidelines set by the IWC for the reviewers — for example, reviewers focused on whether this research can be done using non-lethal means, and how these data can be used in assessments. These are not necessarily same criteria that NAMMCO might use.

The Scientific Committee awaits guidance from the council concerning potential further review of the results within NAMMCO.

Updates from Member Countries

Greenland reported that they have been following the advice on quotas from the Scientific Committee of the IWC of 12 whales in East Greenland. Last year there had been 3 reported catches.

For West Greenland the quota advice from the IWC Scientific Committee of 178 whales had been followed, and last year 170 catches was reported. Greenland is following the new quota advice from the IWC Scientific Committee on 164 whales for this season.

Greenland requests the NAMMCO Scientific Committee to give information on sustainable yield based on new abundance estimates expected from T-NASS 2015 for all large baleen whales in West Greenland waters.

Conclusions by the Management Committee

In regards to **R-3.3.4**: The Management Committee **noted** that there was no new information regarding this request, and **reiterated** that the Scientific Committee should address this request when new information becomes available.

In regards to **R-1.1.6**, the Management Committee **concluded** that the Scientific Committee does not need to do any further review of the Icelandic Minke Whale Research Program in addition to the work already completed by the IWC Expert Panel.

New request R-1.7.12: The Management Committee **requests** the Scientific Committee to give information on sustainable yield based on new abundance estimates expected from T-NASS 2015 for all large baleen whales in West Greenland waters. (See also under 4.1 Fin whales.)

4.5 Narwhal – West Greenland

Status of past proposals for Conservation and Management

Greenland provided an update on the previous MC recommendation of data collection on struck and lost that this advice has been followed and a new campaign has been implemented. This campaign is not species specific. There were some problems with reporting, likely due to some hesitance by the hunters to report struck and lost because these count against the quota. The JCNB has discussed other ways of including struck and lost including research into mortality/survivability of struck and lost animals. Greenland also informed the MC that they are implementing a new electronic reporting system.

Requests for advice from the Scientific Committee

There were four ongoing requests to the Scientific Committee:

R-3.4.9 - NAMMCO/15-2005 (Ongoing): to 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. In 2009 (NAMMCO/18) it was further specified that there was no need for a broad assessment for all marine mammals, and that focus would be on walrus, narwhal and beluga (ongoing).

R-3.4.10 - NAMMCO/14-2005 (Ongoing): future surveys for beluga and narwhal should be planned using the international expertise available through the Scientific Committee, and with input from hunters at the planning stage. In addition, if and when new survey methods are applied, they should be calibrated against previously used methods so that the validity of the survey series for determining trends in abundance is ensured.

R-3.4.11 – NAMMCO/17-2008 (Standing): to update the assessment of both narwhal and beluga when new data are available.

R-3.4.12 - NAMMCO/19-2010 (Ongoing): to provide advice on sustainable takes for narwhal from the Kane Basin in spring, summer and fall.

Advice from the Scientific Committee

Relating to **R- 3.4.9**: In 2011, the Scientific Committee proposed a symposium on beluga and narwhals in relation to disturbance and industrial activities. The IWC is holding a workshop about the effects disturbance on cetaceans in general in the Arctic March 2014. The Scientific Committee **noted** that this meeting is not redundant with respect to the originally envisaged NAMMCO Scientific Committee symposium focusing on

narwhals and beluga. The Scientific Committee **recommends** this symposium to be held in 2015 and awaits further guidance from Council before proceeding with the planning.

Relating to **R-3.4.12**: A subgroup of the Joint Scientific Working Group (JWG) of NAMMCO and the JCNB is scheduled to meet in 10–12 March 2014 in Copenhagen to decide on catch allocations of narwhals in Baffin Bay.

The Scientific Committee discussed an invitation from the Scientific Committee of the IWC to hold a joint scientific symposium, “*Global Review of Monodontids*”. The idea is that this would be a joint NAMMCO-IWC meeting that will include a global review of all stocks of monodontids. This meeting would create the opportunity for experts working on monodontids to exchange information and technology with researchers from within and outside of NAMMCO countries. This global review will not replace the ongoing assessment work in the JCNB.

The Scientific Committee **noted** that the Marine Mammals of the Holarctic biennial international conference could be an alternate venue for exchange of scientific information on belugas with scientists, and this conference would be a useful meeting to have participation from a NAMMCO observer. The Scientific Committee was informed that the next meeting is in September 2014 in St. Petersburg, Russia. The Scientific Committee noted that perhaps a global review of monodontids meeting should be held back to back with the following meeting (in 2016).

Updates from Member Countries

Greenland reported that they followed the management advice from the JWG of the NAMMCO/JCNB with a quota level with a probability of continued growth of 70 % or more until 2016 for narwhal.

Conclusions by the Management Committee

The Management Committee **endorsed** the Scientific Committee recommendation to continue planning of a symposium on effects of disturbance on narwhal and beluga to be held in 2015, and also **recommended** including walrus.

Regarding the proposed “*Global Review of Monodontids*” symposium, the Management Committee concluded that the IWC invitation cannot be accepted as originally envisaged. The MC discussed possible alternatives, and **recommends** that this should be further discussed inter-sessionally.

4.6 Beluga - West Greenland

Status of past proposals for Conservation and Management

There were no past proposals that need to be addressed.

Requests by Council for advice from the Scientific Committee

There were four ongoing requests to the Scientific Committee:

R-3.4.9 - NAMMCO/15-2005 (Ongoing): to 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. In 2009 (NAMMCO/18) it was further specified that there was no need for a broad assessment for all marine mammals, and that focus would be on walrus, narwhal and beluga.

R-3.4.10 - NAMMCO/15–2005 (Ongoing): future surveys for beluga and narwhal should be planned using the international expertise available through the Scientific Committee of NAMMCO, and with input from hunters at the planning stage. In addition, if and when new survey methods are applied, they should be calibrated against previously used methods so that the validity of the survey series for determining trends in abundance is ensured (ongoing).

R-3.4.11 (Standing) – NAMMCO/17-2008: to update the assessment of both narwhal and beluga when new data are available.

R-3.4.13 - NAMMCO/19-2010 (Ongoing): In view of recent dynamic changes in the environment the Scientific Committee is requested to reconsider the temporal and geographical restrictions on the takes of beluga from West Greenland within the framework of the JWG of the NAMMCO/JCNC.

Advice from the Scientific Committee

See above (in section 4.5 Narwhals) regarding **R-3.4.9** and a proposed symposium on beluga and narwhals in relation to disturbance and industrial activities.

There is no new information on **R-3.4.13**.

Updates from Member Countries

Greenland reported that they followed the management advice from the JWG of the JCNC/NAMMCO with a quota level with a probability of continued growth of 70 % or more until 2016 for beluga.

Greenland reported that there were 2 non-intended catches off East Greenland (1 by-catch, 1 mistaken as narwhal). Greenland is investigating possible research on any future incidental catches, such as obtaining samples for stock identity since it is unknown whether these animals are from the West Greenland or Svalbard stocks.

Conclusions by the Management Committee

R.3.4.13. Greenland reported that this request was discussed thoroughly at the meeting in 2012 but could not see that it was reflected in the report from the meeting. The Management Committee views this request as **completed**.

4.7 Northern bottlenose whales

Status of past proposals for conservation and management

There were no recent past proposals to discuss.

Requests by Council for advice from the Scientific Committee

There are no active requests for advice from Council to the Scientific Committee.

Update from the Scientific Committee

From the catch statistics in the NPR-G appendices, low levels of catches were noted (20 animals). The Scientific Committee **recommends** that these catch statistics be validated, since to our knowledge there have not been confirmed catches since the 1950s.

Updates from Member Countries

Greenland has already started the process of validating the reports. The problems could be due to issues with how the form is structured and hunters entering the catches under an incorrect species. These catches were likely harbour porpoises, not northern bottlenose whales.

Conclusion by the Management Committee

The Management Committee endorsed the Scientific Committee recommendation that the catch statistics be validated.

4.8 Killer whales

Status of past proposals for Conservation and Management

No previous proposals for Conservation and Management

Requests by Council for advice from the Scientific Committee

There is one pending request:

R-3.7.2-NAMMCO/13-2004 (Ongoing): to 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 Scientific Committee

Regarding **R-3.7.2**, the Scientific Committee again **noted** that there is not sufficient new information to answer this request at this time.

The Scientific Committee discussed a report on a recent increase in catches of killer whales off Tasiilaq in East Greenland (8 on average per year from 2010 to 2012). Samples have been collected, and genetics indicate that these animals are related to Norwegian herring-eating killer whales (Foote *et al.* 2013). However, only marine mammals (including harp seal pups, and a hooded seal) have been found in the stomachs of caught whales. The authors also report the possibility of a high struck and lost rate in this hunt.

The Scientific Committee **noted** higher levels of annual catches (19 on average per year from 2010 and 2012) also in West Greenland. The Scientific Committee was informed that the recent catch statistics on killer whales in West Greenland have not been validated. As for bottlenose whales, the Scientific Committee **recommends** that all catch data on killer whales are validated before the next Scientific Committee meeting, so that it is possible for the Scientific Committee to monitor the development of the hunt.

Updates from Member Countries

As with bottlenose whales, some of the inconsistencies with catch data are likely due to issues with how the form is structured, and mistakes by the hunters entering the data. Greenland reported that the Greenland Institute for Natural Resources (GINR) has started the process of validating the catch data.

Conclusions by the Management Committee

The Management Committee **noted** that there was no new information regarding request **R-3.7.2**.

4.9 Long-finned pilot whales

Status of past proposals for conservation and management

There were no past proposals that need to be addressed.

Requests by Council for advice from the Scientific Committee

There were four ongoing requests for advice from the Scientific Committee:

R-3.8.3 - NAMMCO/16 02-2007 (Standing): The Management Committee noted that it had been over 10 years since the Scientific Committee concluded its assessment of pilot whales. It was recommended then that a monitoring programme for pilot whales caught in the Faroese drive hunt be implemented. The Commission requested therefore the Scientific Committee to develop a proposal for the details of a cost-effective scientific monitoring programme for pilot whales in the Faroes.

R-3.8.4 - NAMMCO/16 02-2007 (Ongoing): Bearing in mind that T-NASS in 2007 was expected to provide a better basis for an updated abundance estimate for pilot whales in the North Atlantic, the Commission requested the Scientific Committee to make sure that both the 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 - NAMMCO/19-2010 (Ongoing): to assess the status of long-finned pilot whales in West Greenland waters and provide minimum estimates of sustainable yield.

R-3.8.6 – NAMMCO/20-2011 (Ongoing): to continue work to complete a full assessment of pilot whales in the North Atlantic and provide advice on the sustainability of catches, as soon as necessary further information becomes available, with particular emphasis on the Faroese area and East and West Greenland. In the short term, the Scientific Committee was requested to 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.

Advice from the Scientific Committee

The Scientific Committee Chair updated the MC on the re-analysis of T-NASS 2007 data. The NASS - T-NASS surveys subsequent to the 1989 survey have indicated decreasing abundance of pilot whales. However, estimates of pilot whale abundance derived using conventional distance sampling (CDS) from the five NASS

- T-NASS surveys are not directly comparable to one another because of different survey extents and, in the case of the 1989 NASS, different survey timing. Therefore, the NAMMCO SC-17 **recommended** that an index of relative abundance be developed and applied to the area that is common to all surveys with the aim of determining trends in abundance over the full period of the NASS. In 2011, NAMMCO SC-19 **recommended** developing this index only using the three largest surveys and including the data from the CODA survey for enlarging the reference area.

The results of this reanalysis (see NAMMCO/22/5, pp. 37-39, Section 3, pp. 186-88) are suggestive of a decline in abundance over the past two decades, although no firm conclusions could be reached about the reality or causes of the apparent decline in the relative abundance of pilot whales in the index areas. The role of operational changes in the surveys is equivocal and could have led to either a reduction or exaggeration of the observed trend. If the trend is real, it may have been caused, enhanced or lessened by possible changes in the wider distribution of pilot whales in the area. Although it seems very unlikely that an annual harvest of around 1,000 whales could have caused the population to decline, the apparent reduction of pilot whale abundance in the index areas, which includes the hunting area around the Faroe Islands, should be of concern for managers.

A new assessment of pilot whales should consider the trend analysis but should await a new abundance estimate from the planned T-NASS 2015 sightings survey.

The Faroese part of T-NASS 2015 will target pilot whales, and it is recommended to use tracking data in the allocation of survey effort. It is also recommended to investigate potential cooperation with SCANS-III, with the reservation that these surveys are not planned for the same year.

The satellite tracking programme is ongoing. There have been problems with longevity of the tags (longest track so far 133 days) and to get access to pods for tagging. It is **recommended** that more tracking data are collected, especially from offshore areas, with a focus on the period during sightings surveys (July-August). The Scientific Committee also **recommended** that the trend data and tracking data should be taken into consideration by the T-NASS 2015 planning group (see NAMMCO/22/6 for response from the 3 February 2014 meeting of the T-NASS 2015 Steering Group).

Updates from Member Countries

The MC commented on the wording of “concern for managers” in the Scientific Committee report. Mikkelsen (Faroes) reported that the concern lies with the issue that it is unknown how the animals in the abundance estimates are related to the stocks that contribute to the hunt in the Faroes. Ongoing work will continue into abundance estimates and stock identity.

Conclusions by the Management Committee

The Management Committee **noted** the report of the Scientific Committee.

The Management Committee **noted** that a new abundance estimate for pilot whales is anticipated after T-NASS 2015.

4.10 White-beaked, white-sided and bottlenose dolphins

Status of past proposals for conservation and management

No past proposals.

Requests from Council for advice from the Scientific Committee

There was one pending request to the Scientific Committee:

R-3.9.6 - NAMMCO/13-2004 (Pending): to carry out assessments of these species when sufficient information was available on stock delineation, distribution, abundance and biological parameters to initiate the work.

Advice from the Scientific Committee

There is no new information in regards to this request (**R-3.9.6**).

Updates from Member Countries

The Faroe Islands reported that there is a harvest of white-sided dolphins, sometimes while in mixed schools with pilot whales, and a smaller number of directed catches. In recent years, directed catches have been lower than in previous years. The scientific program of sample collection to investigate biological parameters continues.

Conclusions by the Management Committee

The Management Committee **noted** that there was no new information regarding request **R-3.9.6**.

4.11 Harbour porpoise

Status of past proposals for conservation and management

No past proposals to discuss.

Requests for advice from the Scientific Committee

There is one ongoing request to the Scientific Committee:

R-3.10.1 - NAMMCO/7-1997: to conduct a comprehensive assessment of the harbour porpoise throughout its North Atlantic range.

Advice from the Scientific Committee

The Harbour Porpoise Working Group met in November 2013 in Copenhagen (see Annex 1 of NAMMCO/22/5).

Taking into consideration the work of the HP WG, the Scientific Committee **recommends** the following for Greenland:

1. Given the recent discovery of large uncertainty in catches, the SC **recommends** that **Greenland** provides a complete catch history including all types of underreporting of catches before any future attempts are made to conduct an assessment of harbour porpoises in West Greenland.
2. The SC noted that T-NASS 2015 may provide a new abundance estimate for **West Greenland** and **recommended** that a new assessment not be considered until the outcome of this survey is known

Taking into consideration the work of the HP WG, the Scientific Committee **recommends** for Norway:

1. That Norway expand the information about by-catch giving the next priority to the lumpfish fishery by-catch.
2. That surveys to estimate abundance in Norwegian coastal and fjord waters are carried out. These surveys should focus in the areas of highest by-catch (Vestfjorden).
3. That both tracking and genetics studies be carried out to clarify stock delineation. Reliance on genetics data alone is not enough because movements are needed to inform on mixing and dispersion of the animals on a management time scale.
4. That samples be collected from by-catches in Norway, to obtain data on sex ratio, reproductive status, age structure, diet, contaminants, *etc.* Again, the efforts should focus on the Vestfjord area, where most of the by-catches occur.

The next meeting of the HP WG is deferred until new abundance estimates are available.

Updates from Member Countries

Greenland

Greenland reported that GINR had initiated a questionnaire survey, and compared hunter reports to the reported catch. There were some differences between these, and Greenland is investigating these issues and will report back to the MC in the future.

Norway

Bjørge provided background information on the by-catch monitoring programme, exploring the use of “pingers”. They reported that preliminary tests were not successful due to “pinger” failure at the depths of the Norwegian fisheries. Norway is further exploring methods for reducing by-catch, primarily using “pingers” if

some can be found that will work at the depths necessary. Work is underway for beginning monitoring of the lumpfish fishery, and collecting genetics data.

Conclusions by the Management Committee

The Management Committee **endorsed the Scientific Committee** recommendations on Harbour Porpoise for Greenland and Norway.

4.12 Bowhead whale

Status of past proposals for conservation and management

No past proposals.

Update by the Scientific Committee

The Scientific Committee reported that aerial surveys were conducted in 2012 in West Greenland. An abundance estimate using genetic mark/recapture gave a higher abundance estimate likely because the genetics represent the whole influx of animals. The Scientific Committee also reported that acoustic studies both in Greenland and Svalbard are ongoing.

Updates from Member Countries

Greenland informed that there were no catches of bowhead whales (none of the annual quota of 2 whales was used) in 2012 and 2013, but they wish to keep part of this shared Canadian/Greenlandic quota based on the advice from the Scientific Committee of the IWC.

Greenland requests the NAMMCO Scientific Committee to give information on sustainable yield based on new abundance estimates expected from T-NASS 2015 for all large baleen whales in West Greenland waters.

Conclusions by the Management Committee

MC **noted** the SC report on the ongoing research.

New request R-1.7.12: The Management Committee requests the Scientific Committee to give information on sustainable yield based on new abundance estimates expected from TNASS2015 for all large baleen whales in West Greenland waters. (See also 4.1 fin whales and 4.4 minke whales.)

4.13 Sperm whale

Status of past proposals for Conservation and Management

No past proposals.

Update by the Scientific Committee:

Scientific Committee Chair informed the MC that the T-NASS 2007 acoustics data were re-analysed via contract work. Most detections were of delphinids. The results showed only 11 sperm whale detections. However, it could be interesting to compare acoustic detections with sightings.

Conclusions by the Management Committee

The Management Committee **noted** this report and does not request any further analysis of the data.

5. T-NASS 2015 AND SURVEY PLANNING

The T-NASS 2015 Steering Group **recommends** a Survey Planning Working Group meeting summer/autumn 2014, and another Steering Group meeting before the survey (early 2015).

Conclusions by the Management Committee

The Management Committee **expressed their support** of this project, and the planning activities. In addition the Management Committee also **recommends** the inclusion of other range states in the planning process for T-NASS 2015.

6. PROCEDURES FOR DECISION-MAKING ON CONSERVATION AND MANAGEMENT MEASURES

6.1 General Models

No new information or issues raised under this agenda item.

JOINT SESSION OF BOTH MANAGEMENT COMMITTEES

7. ECOSYSTEM-BASED MANAGEMENT

Greenland inquired about any update from member countries' participation in the Arctic Council Experts Group on Arctic Ecosystem-Based Management (EBM) since the last meeting of 3-5 October, 2012, Tromsø, Norway. The observer's report was in NAMMCO/22/12.

Greenland inquired whether any member countries were using Ecosystem Based Management. The Management Committee stated that there was no new information on this topic.

8. USER KNOWLEDGE IN MANAGEMENT DECISION-MAKING

Status of past proposals for conservation and management

Arne Bjørge (Norway) provided an observer's report of the presentation at the University of Tromsø of a project involving Traditional Ecological Knowledge. The project "Traditional indigenous knowledge in the 21st century" organized a workshop in collaboration with the project "Mapping cultural seascapes" at the Fram Centre on the 15th of November 2012. The workshop contained presentations on theoretical approaches to research on traditional knowledge (Bjørkan 2011), as well as presentations on the application of and research on traditional indigenous knowledge concerning climate and the environment in contemporary Sámi societies. NINA researcher Hans Tømmervik presented research on traditional ecological knowledge regarding snow and ice conditions of Sámi reindeer herders (Riseth *et al.* 2010), while Morten Falkegård presented the experiences of salmon biologists relative to the local ecological knowledge of Sámi salmon fishers. Einar Eythorsson presented the methods employed by NIKU in collecting knowledge on historical landscape use as well as local ecological knowledge among Sámi and other coastal dweller's knowledge on changing ecological conditions in the marine environment (Eythorsson and Brattland 2012). The discussion revealed different approaches to including non-scientific knowledge in research depending on the research questions, interests and research objects of the various Fram centre research projects. The possibility of a larger Fram-centre project on interdisciplinary collaboration in research on traditional/local ecological knowledge was also discussed. Present at the workshop were researchers from the Institute of Marine Research (IMR), NINA, NIKU, CICERO, Akvaplan Niva, NGU, the Centre for Sami Studies and the Norwegian College of Fishery Science, and employees and students at the University of Tromsø.

Greenland provided a presentation on a pilot project "Opening Doors to Native Knowledge" that was initiated in 2009 and is ongoing. There are 4 main goals of the project: 1) Increase the local capacity to quantify, document and manage the living resources as well as collecting data on wind, weather and ice conditions, 2) Increase local involvement in nature management and resource utilization, 3) Increase the ability to change management in response to changes in population sizes and distribution, and 4) Increase the dialogue between fishermen and hunters, scientists and management. So far, the experience is that this project 1) strengthened the documentation of the locals' knowledge of the living resources, wind, weather and ice conditions, 2) made the traditional knowledge quantitative and available in written form, 3) promoted local discussion, analysis and interpretation of changes in the living resources, 4) made local knowledge available to the municipality and the Government, 5) creates a forum for dialogue between towns / villages and the Government, 6) can increase the villages' and cities' opportunities for local government, 7) can shorten the time between observed changes and management actions. Further information about the project can be found at www.pisuna.org.

The Management Committee **noted** these presentations.

9. RELATED MANAGEMENT ISSUES

9.1 Marine mammal - fisheries interactions

Status of past proposals for conservation and management

The Management Committee noted that the MAREFRAME project was reported on during the Council meeting.

9.2 Environmental questions

At NAMMCO/21 in 2012, the Management Committee **underlined** the serious situation for ice-breeding seals when the extent and quality of sea ice is rapidly changing under the current climate change.

The Scientific Committee (Report of 20th meeting) **noted** that changing sea ice conditions will need to be taken into account, and will add to the uncertainties in regard to ice-breeding seal assessments. These issues were further discussed in the species updates for harp, hooded and ringed seals, and were also **noted** for walrus.

The Management Committee **noted** the discussion in Council agenda item 9 and the response of the Scientific Committee to this issue.

9.3 By-catch data and monitoring

Norway reported the continued monitoring of the marine mammal by-catches in the coastal fleet, including harbour porpoises, and also harbour seals and grey seals.

The Faroe Islands reported that they are in the process of implementing electronic logbooks for fishing vessels, where reporting of marine mammal by-catches is mandatory. Although it is in the early stages, early data has not shown substantial by-catches but the program will continue.

Greenland reported that there has been a revision of their by-catch and struck and lost reporting system to make them more standardised.

Iceland reported that there was an amendment to the current legislation to logbooks, making reporting of marine mammal by-catches more standardised reporting.

The Management Committee **noted** the updates from each country, and that by-catch data is being collected in all countries.

9.4 Other topics

No new topics were raised.

10. ANY OTHER BUSINESS

The Management Committee **noted** the Scientific Committees use of the word “strongly” and asks for more clarification of the Scientific Committees use of this wording.

Greenland noted the report on a meeting arranged by the bio-ethics committee of the Nordic Council of Ministers in Reykjavik on “Ethical issues and the public attitude towards the hunting of marine mammals: An exercise in critical thinking.” The Management Committee **refers** this report to the planning group on Marine Mammals and Food Security

The Management Committee **noted** that it would be of interest to the MC to receive information on changes or updates to legislation under each species during future MC meetings.

AGENDA

1. CHAIRMAN'S OPENING REMARKS
2. ADOPTION OF AGENDA
3. APPOINTMENT OF RAPPORTEUR
4. CONSERVATION AND MANAGEMENT MEASURES FOR WHALE STOCKS
 - 4.1 Fin whales
 - East-Greenland –Iceland stock*
 - West Greenland*
 - Faroe Islands*
 - Requests by Council for advice from the Scientific Committee
 - Proposals for Conservation and Management
 - Updates
 - 4.2 Humpback whales
 - Greenland*
 - Requests by Council for advice from the Scientific Committee
 - Proposals for Conservation and Management
 - Updates
 - 4.3 Sei whales
 - Requests by Council for advice from the Scientific Committee
 - Updates
 - 4.4 Minke whales
 - Central North Atlantic*
 - West Greenland*
 - Requests by Council for advice from the Scientific Committee
 - Proposals for Conservation and Management
 - Updates
 - 4.5 Narwhal
 - West Greenland*
 - East Greenland*
 - Requests by Council for advice from the Scientific Committee
 - Proposals for Conservation and Management
 - Updates
 - 4.6 Beluga
 - West Greenland*
 - Requests by Council for advice from the Scientific Committee
 - Proposals for Conservation and Management
 - Updates
 - 4.7 Northern bottlenose whales
 - Proposals for Conservation and Management
 - Updates
 - 4.8 Killer whales
 - Greenland*

Report of the Management Committee on Cetaceans

- Requests by Council for advice from the Scientific Committee
 - Updates
- 4.9 Long-finned pilot whales
Faroe Islands
- Requests by Council for advice from the Scientific Committee
 - Proposals for Conservation and Management
 - Updates
- 4.10 White-beaked, white-sided and bottlenose dolphins
- Requests by Council for advice from the Scientific Committee
 - Updates
- 4.11 Harbour porpoise
Greenland
Norway
- Requests by Council for advice from the Scientific Committee
 - Proposals for Conservation and Management
 - Updates
- 4.12 Sperm whale
- Updates
- 4.13 Bowhead whale
East Greenland - Svalbard
West Greenland
- Updates
5. T-NASS 2015 AND SURVEY PLANNING
- Proposals for Conservation and Management
 - Updates
6. PROCEDURES FOR DECISION-MAKING ON CONSERVATION AND MANAGEMENT MEASURES
- 6.1 General Models
7. ECOSYSTEM-BASED MANAGEMENT¹
8. USER KNOWLEDGE IN MANAGEMENT DECISION-MAKING²
9. RELATED MANAGEMENT ISSUES³
- 9.1 Marine mammal - fisheries interactions⁴
- 9.2 Environmental questions

¹ **Agenda item 7:** Overlap with the Management Committee for Seals and Walruses, and could be discussed in a joint meeting of the two Management Committees if desired.

² **Agenda item 8:** Overlap with the Management Committee for Seals and Walruses, and could be discussed in a joint meeting of the two Management Committees if desired.

³ **Agenda Item 9:** These items have been placed separately from the individual species, because they overlap to varying extents with the work of other committees; items 9.1 – 9.3 incl. overlap with the Management Committee for Seals and Walruses, and could be discussed in a joint meeting of the two Management Committees if desired; item 9.2 is also listed on the Council agenda.

⁴ **Agenda Item 9.1:** This item also includes Economic aspects of marine mammal – fisheries interactions and Multi-species approaches to management.

9.3 By-catch data and monitoring

9.4 Other topics

10. ANY OTHER BUSINESS

LIST OF DOCUMENTS

Document no	Title	Agenda item
NAMMCO/22/MC/1	List of Documents	
NAMMCO/22/MC/2	Draft Agenda	2.
NAMMCO/22/MC/3	Status of Past Proposals for Conservation and Management	4., 5., 6. and 9.
NAMMCO/22/MC/4	Summary of Requests by NAMMCO Council to the Scientific Committee, and Responses by the Scientific Committee	4.
NAMMCO/22/MC/5	Recommendations to member countries 2012	4.
NAMMCO/22/5 and ANNEX 1	Report of the Twentieth Meeting of the Scientific Committee	4., 5., 6., 7. and 9.

RECOMMENDATIONS TO MEMBER COUNTRIES 2014**Harbour Porpoise*****Greenland***

The MC **recommends** the following for Greenland:

1. Given the recent discovery of large uncertainty in catches, the SC **recommends** that **Greenland** provides a complete catch history including all types of underreporting of catches before any future attempts are made to conduct an assessment of harbour porpoises in West Greenland.
2. The SC noted that T-NASS 2015 may provide a new abundance estimate for **West Greenland** and **recommended** that a new assessment not be considered until the outcome of this survey is known

Norway

The MC **recommends** for Norway:

1. That Norway expand the information about by-catch giving the next priority to the lumpfish fishery by-catch.
2. That surveys to estimate abundance in Norwegian coastal and fjord waters are carried out. These surveys should focus in the areas of highest by-catch (Vestfjorden).
3. That both tracking and genetics studies be carried out to clarify stock delineation. Reliance on genetics data alone is not enough because movements are needed to inform on mixing and dispersion of the animals on a management time scale.
4. That samples be collected from by-catches in Norway, to obtain data on sex ratio, reproductive status, age structure, diet, contaminants, *etc.* Again, the efforts should focus on the Vestfjord area, where most of the by-catches occur.

