

Report of the Aboriginal Subsistence Whaling Sub-Committee

Tuesday 17 June 2010, Agadir

1. INTRODUCTORY ITEMS

A list of participants is given in Appendix 1.

1.1 Appointment of Chair

Jorge Palmeirim (Portugal) was appointed as Chair.

1.2 Appointment of rapporteurs

Mike Gosliner (USA) was appointed as Rapporteur, with assistance from Greg Donovan (Secretariat and Chair of the Scientific Committee's Standing Working Group (SWG) on the Development of an Aboriginal Whaling Management Procedure (AWMP)).

1.3 Review of documents

The following documents were available to the Sub-Committee:

IWC/61/ASW

- 1 Draft annotated Agenda
- 2 List of documents
- 3 Aboriginal harvest of gray and bowhead whales by Russian indigenous peoples in 2009 (submitted by the Russian Federation)

IWC/62/Rep 1 Report of the Scientific Committee

2. ADOPTION OF AGENDA

The adopted agenda is given as Appendix 2.

3. ABORIGINAL SUBSISTENCE WHALING MANAGEMENT PROCEDURE

3.1 Progress with the Greenlandic Research Programme

3.1.1 Report of the Scientific Committee

The Chair of the Scientific Committee's SWG on the Development of an Aboriginal Whaling Management Procedure, Greg Donovan (hereafter Chair of the SWG), reported on the Scientific Committee's work in this regard.

For a number of years, the Committee has focussed on developing assessment methods that rely on the observed sex ratio in the catches. In short, the broad lack of change in the catch sex ratio, despite the consistently high catch of females, implies that catches off West Greenland have not markedly affected population size. However, this inference is based on a number of assumptions; for example, there is no confounding of the trend over time in sex ratio and other factors. Developing a robust and tested way to use the sex ratio data to arrive at a lower confidence bound for abundance that can be used for management purposes is not a trivial task. It has resulted in some extremely interesting and innovative science. Considerable technical work was undertaken by the SWG during the intersessional period thanks to an intersessional workshop held in Roskilde, Denmark. However, implementation of the new method is proving extremely difficult. The details of this are complex and the SWG investigated a number of approaches to try to overcome these with a focus on one 'high risk-high reward' approach this year. However, it also believed that it was time to take stock of its work on this matter.

The original motivation for this work had been an inability to provide management advice for this hunt. Work on a sex ratio estimation of abundance for West Greenland common minke whales therefore provided a dominant focus for our efforts at annual meetings and intersessional workshops. Several developers from Greenland, South Africa and Norway have devoted considerable research effort to this task. The work has been scientifically challenging and methodologically innovative and the potential gain in terms of providing management advice (including the development of long-term SLAs) extremely high. However, despite this enormous effort, no satisfactory conclusion has been reached to date.

The situation has also changed with respect to being able to provide advice. Last year, the Committee had agreed an abundance estimate for common minke whales off West Greenland that, in conjunction with the agreed approach to

provide safe interim advice for up to two five-year blocks, meant that the Committee was able to provide satisfactory management advice for the first time.

Therefore, the Committee concluded that it will no longer prioritise development of the sex ratio approach unless a comprehensive final analysis can be endorsed at the 2011 Scientific Committee meeting. Although it would be regrettable to abandon the sex ratio effort, there are many other urgent issues which require attention.

In 2009, the Committee agreed an approach for providing safe interim advice on catch limits that is valid for up to two five-year blocks. The idea of this is to provide time to develop long-term *SLAs* for the Greenlandic hunts. While some work on this has been undertaken, given the complexity of the multispecies hunt in Greenland, the Committee has agreed that this must be given high priority for its future work, so that suitable *SLAs* can be developed and tested before the interim advice expires.

The Committee has started to identify the types of scenarios that will need to be considered. The Committee is further along with respect to fin whales than common minke whales but there was insufficient time during the present meeting to give this full consideration.

In conclusion, the Committee re-emphasised the importance of developing *SLAs* for Greenlandic fisheries as soon as possible. It agreed that this should form the primary item for discussion at the intersessional workshop.

3.1.2 *Discussion and Recommendations*

The Sub-Committee noted the report of the Scientific Committee and its recommendations.

3.2 *Implementation Review for gray whales*

3.2.1 *Report of the Scientific Committee*

This was the first review since the Commission adopted the Gray Whale Strike Limit Algorithm in 2004 and this was endorsed by the Commission.

The purpose of an *Implementation Review* is to update information on catch history and abundance and to determine whether any other new information that has become available in the intervening (normally) 5-year period indicates that the present situation is outside the region of parameter space tested during *SLA* development. If this is the case, additional trials will need to be developed to test the performance of the *SLA* in this new region. If performance is found to be unacceptable under these new trials, revisions to the *SLA* will be required. In practical terms, the most important issues relevant to the present *Implementation Review* relate to the issues of stock structure and updated information on abundance/trends.

The Chair of the SWG first focussed on the issue of the Committee's Data Availability Agreement (DAA) and the conduct of this *Implementation Review*. *Implementation reviews* are subject to the DAA incorporating a timetable of events. Although many datasets and analyses were completed within the appropriate timelines, unfortunately, just before adoption of its report, the SWG had realised that the photo-identification and genetics data central to its discussions of stock structure and movements had not formally been submitted to the IWC under the DAA (although the papers themselves had met the appropriate deadlines). The same is also true for the telemetry data that, while not central to the conclusions reached, were also discussed under that Agenda Item; in this case the paper also did not meet the appropriate deadline.

The Committee recognised that discussions of these data cannot be considered as part of the *Implementation Review*. Thus although the present *Implementation Review* is considered complete with respect to the discussions involving the data properly made available under the DAA, it recommended that a new *Implementation Review* begins at the next Annual Meeting. This is discussed further below.

The Chair of the SWG then turned to the substance of the *Review*, beginning with the issue of stock structure.

In the development process for the *Gray Whale SLA*, the possibility of a summer feeding aggregation along the Pacific coast between California and southeast Alaska was noted but the Committee had agreed that a single stock scenario was the most appropriate.

Considerable new information has been collected since that time on the animals feeding along the Pacific coast and the SWG received three papers of relevance to stock structure at this meeting (unfortunately, as noted above, these did not meet all of the DAA requirements). Although different names have been used in the past by different authors (e.g. the southern feeding group, the Pacific Coast Feeding aggregation), the Committee agreed to refer to the animals that spend the spring, summer and autumn feeding in coastal waters of the Pacific coast of North America from California to southeast Alaska as the Pacific Coast Feeding Group or the PCFG.

A number of comprehensive papers that made use of genetic, photo-identification and satellite telemetry data were discussed. In summary, there was considerable discussion of their implications for stock structure. Despite some differences in interpretation and recognising that further analyses could be carried out, it was agreed that the hypothesis

of a distinct PCFG was plausible and warranted further investigation. The Committee noted the value of satellite telemetry for its work in identifying and parameterising stock structure issues and requests that it continues.

The Chair of the SWG noted that knowledge of catch data forms an important component of the review and the updated catch series can be found in Annex E, Table 1 of SC/62/Rep 1.

No *Implementation Review* can be undertaken without an examination of abundance and trends. Two papers relating to calf counts were reviewed, one from migration and one from the breeding grounds. The Committee noted the value of the long-term counts to its work on a number of matters and recommended that these data continue to be collected and reviewed during future *Implementation Reviews*. In conclusion, the Committee agreed that the new information presented did not indicate a need to modify the trials structure.

There were also two new papers relating to total abundance estimates. The first, SC/62/BRG8 reported a promising new approach that has recently been adopted for the counts of southbound migrating whales at Granite Canyon, California, which form the basis of abundance estimation for the eastern gray whales. The Scientific Committee welcomed further investigation of this approach, noting the importance of ensuring comparability among years in any long-term monitoring effort.

The second paper, re-evaluated the data from all 23 seasons of shore-based counts for the Eastern North Pacific stock of gray whales conducted throughout all or most of the southbound migration near Carmel, California. The Committee thanked the authors for this comprehensive and careful review of this extremely valuable time-series of absolute abundance estimates. Agreed numbers are given in Table 2 of SC/62/Rep 1.

Photo-identification data were used to examine the abundance of the PCFG and the authors concluded the abundance of animals that regularly return to the Pacific Northwest to be at most a few hundred individuals.

These data will be extremely useful during the proposed 2011 *Implementation Review*.

Although undertaking a formal assessment is not a necessary part of the Review, the Committee was pleased to receive a Bayesian assessment of eastern gray whales (SC/62/AWMP2) that used the new information on abundance and catches. The model based 2009 population size of 21,911 was some 85% of estimated carrying capacity.

These results of the assessment within the bounds considered during the *Implementation*. Although the base operating model used to estimate the *Gray Whale SLA* did not explicitly include the 1999-2000 event, robustness tests involving catastrophic mortality events were conducted and the *Gray Whale SLA* performed adequately for these tests.

The Committee received a summary of all gray whale strandings in California, Oregon and Washington between 1 January 2010 and 31 May 2010. This showed that stranding levels were now similar to 'normal' years. The Committee recommends that these data continue to be collected and presented to the Committee.

The Chair of the SWG noted that the crux of an *Implementation Review* is to decide whether further trials are needed to test the *SLA*. Notwithstanding DAA issues, the Committee agreed that the information provided on the PCFG was such that its existence represents a plausible hypothesis not considered in the original *Implementation*. In accord with Committee guidelines for this process, this is sufficient to trigger a new *Implementation Review* in 2011.

Proper consideration of this hypothesis is important from an AWMP perspective since it relates to the potential harvesting in this region by the Makah Tribe and thus the need for the SWG to provide advice/develop an *SLA* to fulfil both the 'conservation' and 'user' objectives given by the Commission.

The Committee therefore agreed that the information on stock structure and hunting warranted the development of trials to evaluate the performance of *SLAs* for hunting in the Pacific Northwest at the 2011 *Implementation Review*. The assessment showed that the population as a whole is in a healthy state. The Committee agreed that for the purposes of the 2011 *Implementation Review*, the primary focus should be the PCFG.

That being said, it also agreed that over the next few years (i.e. in time for the next but one *Implementation Review* in about 2016), further work should be undertaken to investigate the possibility of structure on the northern feeding grounds, especially in the region of the Chukotkan hunts. The Committee made a number of recommendations on the type of information to be collected and provided.

General guidance for the 2011 *Implementation Review* is also provided, noting the importance of a feedback mechanism to be incorporated in any proposed *SLAs*, the need for discussions with hunters and others over 'need envelopes' and work that would assist (although not required for beginning), the trial development process.

In conclusion, in the light of the DAA difficulties discussed earlier, the Chair of the SWG reported that the Committee agreed that it had completed the *Implementation Review* on the basis of the data that had been made available to it in accord with the DAA. However, given the new information available that did not meet the DAA conditions, it also agreed that a new *Implementation Review* should occur in 2011 to take into account this new information.

While in practice, this does not alter the Committee's timetable of work in that it was not in a position to develop and run trials at this meeting there is a clear need to ensure that the DAA difficulties do not occur again. The Chair of the

SWG agreed to ensure that all likely contributors to the review are made aware of the DAA requirements as well as the guidelines for genetic analyses and data. The draft guidelines for *Implementation Reviews* referred to under Item 8.4 will also assist this process. Preparatory discussions for the 2011 *Implementation Review* will take place at a proposed intersessional workshop.

3.2.2 Discussion and Recommendations

Mexico noted the low calf counts for 2007-2009 (less than 3 percent), but at the same time, the population remains above its MSY level. The population, in 2009, was estimated at 22,000 individuals, which is 85 percent of carrying capacity. Mexico asked how this might affect population trends in the future and whether this is being considered in the implementation review. The Chair of the SWG indicated that calf counts fluctuate considerably among years and explained that both the assessment (that determines status with respect to MSYL) and the *Implementation Review* took this into account. In addition, new information on calf counts and total abundance are part of the regular, normally 5-year, *Implementation Review* process. He also noted the Committee's recommendation that the calf count and total abundance censuses continue.

Mexico also noted the Scientific Committee's determination that the existence of a distinct Pacific Coast Feeding Group (PCFG) was plausible and asked what additional research to consider that hypothesis is warranted. The Chair of the SWG noted that the primary work needed for the 2011 *Implementation Review* was the establishment of *Implementation Trials* that take into account plausible stock structure hypotheses and the nature of the proposed hunt. He also drew attention to the list of five items of work that would assist with the planned 2011 *Implementation Review* given under Item 8.2.7 of IWC/62/Rep 1, noting that whilst they would assist, they were not required for beginning the trial development process.

4. ABORIGINAL WHALING SCHEME (AWS)

4.1 Report of the Scientific Committee

Two main issues arising from the last bowhead *Implementation Review* related to (1) stock structure and in particular genetic samples and (2) data availability. With respect to the first, there are now guidelines for DNA data quality while with respect to the second, the Committee had agreed that the Chair of the SWG should develop explicit guidelines for conducting *Implementations* and *Implementation Reviews* for the AWMP process. With respect to the AWS itself, The Chair of the SWG noted that the Committee again strongly recommended that the Commission adopt the Aboriginal Subsistence Whaling Scheme (IWC, 2003a, pp.22-23). It noted that discussions within the Commission of some aspects such as the 'grace period' are not yet complete.

4.2 Discussion and Recommendations

The Sub-Committee noted the report of the Scientific Committee and its recommendations.

5. ABORIGINAL SUBSISTENCE WHALING CATCH LIMITS

5.1 Bering-Chukchi-Beaufort Seas stock of bowhead whales (annual review)

5.1.1 Report of the Scientific Committee

The Chair of the SWG noted that the Committee was pleased to receive a number of papers providing new biological information on this stock of bowhead whales. Two papers dealt with broad-scale aerial surveys from the northeastern Chukchi (SC/62/BRG13) and Alaskan Beaufort (SC/62/BRG14) Seas; a paper on the use of new acoustic monitoring equipment in the census effort, a paper on the identification of yearlings from aerial photographs and information on ongoing census work. The Committee welcomed this work and encourage its continuation.

The Chair of the SWG reported that a total of 38 bowhead whales were struck resulting in 31 animals landed in the Alaskan hunt in 2008. Of the landed whales, 12 were males, 18 were females, while sex was not determined for one animal. Other details are given in Annex F, item 4.1.2. There were no catches of bowhead whales by Russia this year.

The Committee reaffirmed its advice from last year that the *Bowhead SLA* remains the most appropriate tool for providing management advice for this harvest. The results from the *SLA* show that the present strike limits are acceptable.

The next (second) *Implementation Review* for B-C-B bowheads is scheduled in 2012. The Committee encouraged researchers to present relevant papers and new information for consideration during next year's meeting, so that preparations for the next *Implementation Review* can proceed efficiently.

The Committee reviewed the catch limits in Table 4 of 'Proposed consensus decision to improve the conservation of whales from the Chair and Vice-Chair of the Commission' (IWC/62/7rev). For B-C-B bowheads, the maximum strike limit is 67 per year (plus a carryover provision of 15 unused strikes from the previous year) for total landed of 560 (580 written in footnote 8 seems to be a typo). The Committee agrees that the strike limits for B-C-B bowheads listed in Table 4 are in accord with the management advice provided by the *Bowhead SLA*, noting that the normal regular review is also intended.

5.1.2 Discussion and Recommendations

The Sub-Committee noted the report of the Scientific Committee and its recommendations.

The USA reported on its subsistence hunting of bowhead whales from this stock. Harry Brower, Chairman of the Alaska Eskimo Whaling Commission (AEWC), presented the report. The USA noted that the stock remains healthy and growing, with a current abundance estimate accepted by the Scientific Committee of about 12,600 whales.

In 2009, subsistence hunters in Alaska struck 38 bowhead whales, of which 31 were landed, for an efficiency rate of 82%. Springtime hunts are generally more difficult than hunts in the fall because of ice and weather conditions, a situation that is worsening due to climate change, which is making shore-fast ice very unstable. As a result, the efficiency of spring hunts usually is lower than fall hunts. In 2009, however, the efficiency of the spring hunt (85%) exceeded that of the fall hunt (80%). The higher efficiency in the spring hunt was due to very poor ice conditions, which limited hunting opportunities to three villages and a small number of strikes. The few strikes that were used were mostly successful.

Two whales landed in the fall hunt were determined to be calves, based on the small size of their baleen plates. Biologists examined one of the calves and determined that it did not have milk in its stomach. The other calf was not examined by a biologist. Calves are born in the spring and grow quickly. By the fall, a calf can be as large as a yearling, making it difficult for hunters to recognize that it is a calf unless accompanied by a cow. While calves are always accompanied by cows in the spring, this is not always the case in the fall. The AEWC Commissioners convened a hearing to review the circumstances surrounding the taking of the calves. The whaling crews involved reported that both whales did not appear to be accompanied by cows and were swimming independently. In light of this, the Commissioners concluded that there was no basis on which the crews could have determined that the whales were calves until they were landed and did not impose any penalties or sanctions.

The AEWC also recognized the value of the Cooperative Agreement it has with the government of the USA, which allows it to manage the subsistence hunt for bowhead whales, and expressed appreciation for the financial support that it receives for research on bowhead whale biology from the USA and the North Slope Borough.

The USA also noted the submission of two documents on this topic for consideration at the plenary session, IWC/62/12 and IWC/62/13, summarizing the activities of the AEWC.

5.2 North Pacific Eastern stock of gray whales (annual review)

5.2.1 Report of the Scientific Committee

The Chair of the SWG reported on the 2009 catches in Chukotkan waters. A total of 115 gray whales (58 males, 57 females) were taken and 1 was lost. A total of 6 of the 115 individuals were considered as unfit for consumption in 2009 (samples were taken from all 6). Biological sampling was conducted on 61 gray whales.

With respect to management advice, the Chair of the SWG recalled his earlier presentation noting that the Committee had agreed that it had completed the *Implementation Review* but that a new *Implementation Review* should take place next year. In this context, the Committee agreed that its position with respect to the provision of management advice was unchanged from last year, i.e., the *Gray Whale SLA* remains the appropriate tool to provide management advice for eastern North Pacific gray whales. This remains the case, at least until the 2011 *Implementation Review* is completed.

In line with the values in Table 4 of the proposed consensus decision (IWC/62/7), the Secretariat ran the *SLA* using the updated information on catches and abundance agreed at this meeting. This confirmed that an annual strike limit of 145 animals will not harm the stock (note that 145 is the maximum catch that can be taken in any one year; the annual average catch is 129 whales). The additional five whales added to the annual maximum in any one year from that previously considered (140) was intended to account for ‘stinky’ whales (IWC/62/7rev). In providing its advice, the Committee drew attention to the need for a new *Implementation Review* next year with a focus on PCFG whales. It was noted that although Table 4 included strike limits for 10 years, the proposed consensus decision envisages the usual periodic reviews of strike limits for indigenous whaling.

5.2.2 Discussion and Recommendations

The Sub-Committee noted the report of the Scientific Committee and its recommendations.

The Russian Federation noted that the most important issue for its subsistence hunters in Chukotka concerns “stinky” whales. Because these whales are not edible, the Russian Federation does not believe that they should be included in the tally of landed whales. The Russian Federation indicated its intention to discuss this issue further in the agenda item regarding the future of the IWC.

The UK sought clarification from the Chair of the Sub-committee as to whether it should raise concerns about certain subsistence whaling strike limits contained in Table 4 of the Chair’s revised proposal on the future of the IWC during this session or defer a discussion until the meeting to consider the Chair’s proposal. Specifically, the UK noted the

increases in the proposed strike limits for West Greenland humpback whales and North Pacific Eastern gray whales and wished to voice concern that these strike limits, if adopted, would remain in place for ten years without consideration or the usual review of such limits by the Sub-committee. The Chair of the Sub-committee advised that the issue would be more appropriately addressed in the discussion of the future of the IWC. That suggestion was acceptable to the UK.

5.3 Common minke whale stocks off Greenland (annual review)

5.3.1 Report of the Scientific Committee

The Chair of the SWG reminded the Committee that there are two hunts to consider under this Agenda Item, that off West Greenland and that off East Greenland.

WEST GREENLAND

The Chair of the SWG reported that in the 2009 season, 153 minke whales were landed in West Greenland and 11 were struck and lost. Of the landed whales, there were 105 females, 47 males, and one whale of unreported sex. Genetic samples were collected for 97 of the 153 minke whales landed in 2009.

With respect to management advice, in 2007, the Commission agreed that the number of common minke whales struck from this stock shall not exceed 200 in each of the years 2008-12, except that up to 15 strikes can be carried forward. Prior to last year, the Committee has never been able to provide satisfactory management advice for this stock. Last year, the Committee was for the first time able to provide management advice for this stock. It had adopted a new abundance estimate and agreed method for providing interim management advice. Such advice can be used for up to two five-year blocks whilst SLAs are being developed. Based on the application of the agreed approach, and the lower 5th percentile for the 2007 estimate of abundance (i.e. 8,918), the Committee repeated its advice of last year that an annual strike limit of 178 will not harm the stock.

EAST GREENLAND

The Chair of the SWG reported that three males and one female common minke whale were struck (and landed) off East Greenland in 2009 (no animals were struck and lost). Genetic samples were obtained from two of these whales. Catches of minke whales off East Greenland are believed to come from the much larger Central stock of minke whales.

With respect to management advice, in 2007, the Commission agreed to an annual strike limit of 12 minke whales from the stock off East Greenland for 2008-12, which the Committee stated was acceptable in 2007. The present strike limit represents a very small proportion of the Central Stock. The Committee agreed that the present strike limit will not harm the stock.

5.3.2 Discussion and Recommendations

The Sub-Committee noted the report of the Scientific Committee and its recommendations.

5.4 West Greenland stock of fin whales

5.4.1 Report of the Scientific Committee

The Chair of the SWG reported that a total of 8 (1 male; 7 females) fin whales were landed, and 2 struck and lost, in West Greenland during 2009. Genetic samples were collected for 5 of the 8 fin whales harvested during 2009.

Management advice

With respect to management advice, in 2007, the Commission agreed to a strike limit (for the years 2008-12) of 19 fin whales struck off West Greenland. The Committee agreed an approach for providing interim management advice in 2008 and this was confirmed by the Commission. It had agreed that such advice could be used for up to two five-year blocks whilst SLAs were being developed. Based on the application of the agreed approach in 2008, the Committee **agrees** that an annual strike limit of 19 whales will not harm the stock.

5.4.2 Discussion and Recommendations

The Sub-Committee noted the report of the Scientific Committee and its recommendations.

5.5 West Greenland stock of bowhead whales

5.5.1 Report of the Scientific Committee

The Chair of the SWG noted that the Committee has agreed at the previous three Annual Meetings to consider a single stock of bowhead whales in this region as the 'working hypothesis'; use of the term 'working' hypothesis implies that alternative hypotheses can still be considered and thus there should be consideration of both one stock and two stock hypotheses.

The Committee was therefore pleased to receive this year a number of stock structure papers.

There was considerable discussion of these papers and their strengths and weaknesses in their ability to distinguish among stock structure hypotheses. No final conclusion was reached. The Committee encouraged the continuation of work on structure in order to allow it to conduct a more in-depth analysis next year.

It also received a preliminary evaluation of the potential to use photographs and capture-recapture analyses to estimate the size of the Eastern Canada-West Greenland stock(s) of bowhead whales.

The Chair of the SWG then reported on review recent catch information. A total of five female and one male bowhead whales were taken for subsistence purposes in Disko Bay, West Greenland, in April-May 2009 and 2010 (no whales were struck in 2008 and no whales were struck and lost in 2009 and 2010). The Committee requested the Secretariat to contact Canada to try to obtain data on Canadian catches.

With respect to management advice, the Chair of the SWG noted that in 2007, the Commission agreed to a quota for 2008 to 2012 of two bowhead whales struck annually off West Greenland. In 2008, the Committee was pleased to have developed an agreed approach for determining interim management advice that is valid for two five-year blocks. The Committee again agreed this year that the current catch limit for Greenland will not harm the stock (noting that this applies whichever stock structure hypothesis prevails). It was also aware that catches from the same stock have been taken by a non-member nation, Canada. It agreed, as in previous years, that should Canadian catches continue at a similar level as in recent years, this would not change the Committee's advice with respect to the strike limits agreed for West Greenland.

The Committee reviewed the catch limits in Table 4 of the 'Proposed consensus decision to improve the conservation of whales' (IWC/62/7rev). For Eastern Canada/West Greenland bowheads, the Greenland strike limit is 2 per year (plus a carryover provision of two unused strikes from the previous year). The Committee agreed that the strike limits for Eastern Canada/West Greenland bowheads that are listed in Table 4 are in accord with its advice, recognising that the normal regular review is also intended as part of IWC/62/7rev.

However, the Committee noted that Canada may allow for regular catches from this stock. If the size of Canadian catches increases then the Committee's advice may change in that the total number of removals may exceed the safe limit determined by the agreed approach. If the Canadian catch increases, then the Committee wished to draw attention to the fact that the total number taken from the stock may be greater than what is safe. Given the importance of this issue, the Committee recommended that the Secretariat should contact Canada requesting information about catch limits for bowhead whales.

5.5.2 *Discussion and Recommendations*

The Sub-Committee noted the report of the Scientific Committee and its recommendations

5.6 **North Atlantic humpback whales off St Vincent and The Grenadines**

5.6.1 *Report of the Scientific Committee*

The Chair of the SWG reported that three females were taken during 2010. Neither genetic samples nor photographs were available for these animals. The Committee has encouraged St. Vincent and The Grenadines to submit as much information as possible about any catches to the Committee via an Annual Progress Report. The Committee **strongly recommends** collection of genetic samples for any harvested animals as well as fluke photographs, and submission of these to appropriate catalogues and collections.

With respect to management advice, in recent years, the Committee has agreed that the animals found off St. Vincent and The Grenadines are part of the large West Indies breeding population. The Commission adopted a total block catch limit of 20 for the period 2008-12. The Committee **agrees** that this block catch limit will not harm the stock.

5.6.2 *Discussion and Recommendations*

The Sub-Committee noted the report of the Scientific Committee and its recommendations.

The USA regretted that representatives of St. Vincent and The Grenadines could not be present to provide information about its hunt. The USA noted that it would be useful if the Sub-committee report suggested that such information be provided at the plenary session under agenda item 6.3 (aboriginal subsistence whaling catch limits), providing an opportunity for questions and discussion, if needed. The Chair of the Sub-committee endorsed that suggestion.

The Chair of the SWG indicated that a scientist from St. Vincent and The Grenadines attended the meeting of the Scientific Committee and provided information on the lengths of whales taken. These data are included in the SWG report. The SWG also held informal discussions on ways to improve information submission.

5.7 **Humpback whales off West Greenland**

5.7.1 *Report of the Scientific Committee*

The Chair of the SWG noted that the Committee was first asked to provide management for humpback whales off West Greenland in 2007 (IWC, 2008b).

Humpback whales found off West Greenland belong to a separate feeding aggregation whose members mix on the breeding grounds in the West Indies with individuals from other similar feeding aggregations and the Committee has agreed that the West Greenland feeding aggregation was the appropriate management unit to consider when formulating

management advice. Last year it had agreed a fully corrected estimate for 2007 (3,039, CV=0.45) for use in assessments and a rate of increase for humpback whales off West Greenland of 0.0917yr^{-1} (SE 0.0124).

No new information was available for this stock this year. The Committee has agreed an approach for providing interim management advice that has been confirmed by the Commission. It had agreed that such advice could be used for up to two five-year blocks whilst *SLAs* were being developed. Using this approach, as in previous years, the Committee agreed that an annual strike limit of 10 humpback whales will not harm the stock.

The Chair then introduced the Scientific Committee's discussions on IWC/62/9 which is the report of a Small Working Group (Donovan, Palka, George, Hammond, Levermann and Witting) established by the Chair of the Commission to provide advice on conversion factors for the Greenlandic hunt. At the intersessional Commission meeting it was agreed that there was no need for the report to be reviewed in detail by the Scientific Committee but that individual scientists should send comments to the authors so that the report could be revised, if necessary, by the Commission meeting in Agadir (see the Chair's Report of the Intersessional Meeting). However, the Chair of the SWG agreed that this issue would be added to the SWG agenda.

A short summary of the report, which has been available on the IWC website since February 2010, is given in Annex E, item 9.1¹. A longer summary, based on the executive summary of the full report, is given in the Chair's Report of the Intersessional Meeting.

One member of the Committee raised some issues during discussion within the SWG and the response of the authors can also be seen.

In conclusion, the Committee endorsed the **recommendations** of the report.

In particular, the Committee supported the recommendations for further work that data on both 'curved' and 'standard' measurements are obtained during the coming season for common minke whales, fin whales and bowhead whales and that new data on edible products be collected using properly-designed protocols, analysed appropriately and reviewed. It also supported the recommendation that the work be undertaken by scientists, hunters and wildlife officers since this would improve the ability of hunters, particularly those in remote areas, to obtain more accurate length and weight measurements.

The Committee was informed that Greenland has already begun to implement some of the recommendations of the Small Working Group and they will be implementing all of them in the next season. There is now increased collaboration between hunters, scientists and managers and improved estimates of the three types of edible product should be possible by having each product stored in separate bins and weighed.

It was also noted that collaboration between hunters from Alaska and Greenland was underway with the respect to flensing techniques for bowhead whales. Finally, the Committee **requests** Greenland to provide information on its sampling scheme and data validation protocols to next year's meeting.

5.6.2 Discussion and Recommendations

Denmark noted its hope that the issue concerning the taking of humpback whales by Greenland would have been resolved at the intersessional IWC meeting in St. Petersburg, Florida, but it was not due to the lack of a quorum. Thus, the issue needed to be considered at IWC62. If the matter is not resolved at this meeting, Denmark will need to put forward the proposal again, on an individual basis. Denmark also noted that there was a mistake in the earlier proposal that would be corrected in a revised proposal. A footnote had been omitted that would allow the carryover of two unused strikes of humpback whales to the subsequent year. Further, Denmark indicated its intention to put forward certain amendments to the Chair's proposal on the future of the IWC to rectify technical issues related to its humpback whale proposal and minke whales from the Central Stock off East Greenland.

The UK was pleased to learn that the Scientific Committee had reviewed the technical report on conversion factors for Greenland's hunt. The UK thought that this was a useful piece of work, although it had concerns about some of the conclusions of the report. The UK noted that, for a significant number of whales taken by Greenland, the amount of meat extracted is very low, raising concerns about the efficiency of the hunt. In addition, the UK noted that gaps remain in Greenland's data collection and protocol development and welcomed the Scientific Committee's request for more work in this area. The UK invited Greenland to provide information about its efforts to address the Scientific Committee's recommendations concerning data collection and data protocols, both in terms of steps already being taken and those planned in the future. Both Germany and Australia associated themselves with the remarks of the UK.

Greenland explained that it had drafted an executive order to revise the regulation of the reporting system in response to the report presented at the March meeting of the Small Working Group established to provide advice on conversion factors for Greenland's hunt. This will yield some of the requested information. Once the results of IWC62 are known with respect to the humpback whale proposal, Greenland will hold public hearings on the executive order and make any necessary revisions prior to implementation.

¹ The full 52pp. report can be found at http://http://www.iwcoffice.org/_documents/commission/IWC62docs/62-9.pdf

The UK referred to a recent article indicating that a major portion of the meat and blubber from two bowhead whales taken in this year's hunt in Greenland was not processed quickly and decomposed. The article suggested that Greenland had admitted that this constituted an example of inadequate exploitation. The UK believed that such incidents highlighted the magnitude of the work that Greenland needs to do to improve the efficiency of its hunt, particularly hunting that targets large whales. The UK also noted reports that one hunt required the use of five harpoons. The UK asked for confirmation of these reports from Greenland and sought an explanation if these reports were accurate. In particular, the UK wondered if multiple harpoons were needed because some failed to explode or because the harpoons were not powerful enough. The UK welcomed information on how Greenland intends to improve the efficiency of its hunts.

Greenland responded that, in accordance with the rules of procedure set forth in the IWC Schedule, it would report on its 2010 whaling operations next year. Greenland confirmed that there had been a problem with two bowhead whales taken in its hunts, but noted that its last bowhead hunt had been conducted successfully. Greenland indicated that it would provide the requested information next year, at which time it will also report on the efficiency of its whale hunts.

6. OTHER MATTERS

No other matters were raised.

7. ADOPTION OF REPORT

The report was adopted 'by post' on 20th June 2010.

APPENDIX 1
LIST OF PARTICIPANTS

Argentina

Mario Oyarzabal
Miguel Iniguez

Australia

Donna Petrachenko
Peter Komidar
Gavin Hinten
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Jorge Palmeirim (Chair)
Marina Sequeira

Russian Federation

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Harry Brower

SC Chair

Debra Palka

IWC Secretariat

Greg Donovan
Simon Brockington

APPENDIX 2
AGENDA

1. INTRODUCTORY ITEMS
 - 1.1. Appointment of Chair Appointment of Rapporteur
 - 1.2. Review of Documents
2. ADOPTION OF THE AGENDA
3. ABORIGINAL SUBSISTENCE WHALING MANAGEMENT PROCEDURE
 - 3.1. Progress with the Greenlandic Research Programme
 - 3.1.1. Report of the Scientific Committee
 - 3.1.2. Discussion and Recommendations
 - 3.2. *Implementation Review* for gray whales
 - 3.2.1. Report of the Scientific Committee
 - 3.2.2. Discussion and Recommendations
4. ABORIGINAL WHALING SCHEME (AWS)
 - 4.1. Report of the Scientific Committee
 - 4.2. Discussion and Recommendations
5. ABORIGINAL SUBSISTENCE WHALING CATCH LIMITS
 - 5.1. Bering-Chukchi-Beaufort Seas stock of bowhead whales (annual review)
 - 5.1.1. Report of the Scientific Committee
 - 5.1.2. Discussion and Recommendations
 - 5.2. North Pacific Eastern stock of gray whales (annual review)
 - 5.2.1. Report of the Scientific Committee
 - 5.2.2. Discussion and Recommendations
 - 5.3. Common minke whale stocks off Greenland (annual review)
 - 5.3.1. Report of the Scientific Committee
 - 5.3.2. Discussion and Recommendations
 - 5.4. West Greenland stock of fin whales
 - 5.4.1. Report of the Scientific Committee
 - 5.4.2. Discussion and Recommendations
 - 5.5. West Greenland stock of bowhead whales
 - 5.5.1. Report of the Scientific Committee
 - 5.5.2. Discussion and Recommendations
 - 5.6. North Atlantic humpback whales off St. Vincent and The Grenadines
 - 5.6.1. Report of the Scientific Committee
 - 5.6.2. Discussion and Recommendations
 - 5.7. Humpback whales off West Greenland
6. OTHER MATTERS
7. ADOPTION OF THE REPORT

TERMS OF REFERENCE

The terms of reference of the Aboriginal Subsistence Whaling Sub-committee are to consider relevant information and documentation from the Scientific Committee, and to consider nutritional, subsistence and cultural needs relating to aboriginal subsistence whaling and the use of whales taken for such purposes, and to provide advice on the dependence of aboriginal communities on specific whale stocks to the Commission for its consideration and determination of appropriate management measures (*Rep. int. Whal. Commn* 48: 31).